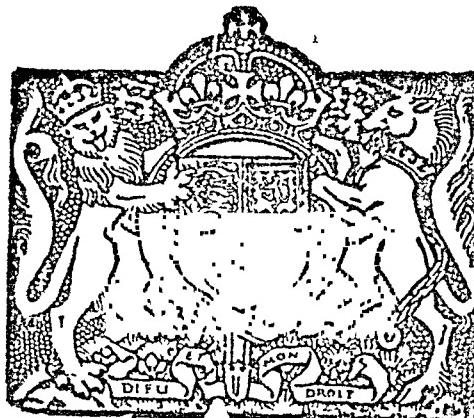




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INTRODUCTION.

This report shows the important place which the tobacco crop holds in Indian agriculture and indicates how returns to tobacco growers can be increased by reducing the costs of distribution at various stages from the field to the consumer or manufacturer. At present the share of the consumers' or manufacturers' price obtained by the grower is small, being only 10 annas in the rupee in the case of the internal trade and in respect of tobacco leaf exported to the United Kingdom the grower gets only about 6 annas in the rupee paid by the buyers for stripped leaf.

Few people know that India produces about one-fourth of the world's tobacco and that it is the leading cash crop of the cultivators in many parts of the country. Still fewer are aware that India produces high quality cigarette tobacco and that many well-known brands of cigarette are manufactured in India for which large quantities of locally grown tobacco are used. In view of the general lack of knowledge and the absence hitherto of published information on the subject this report is somewhat more comprehensive and voluminous than others of the marketing survey series so far issued. This seems to be justified by the range and complexity of the material.

The report sets out in detail how better prices can be secured for growers by economies in distribution, by the production of high quality tobacco,—prices of which show an upward tendency,—by establishing regulated and open markets in the main producing areas, by the reduction and regulation of market charges—which are in many cases scandalously high—and by the adoption of uniform standard quality grades.

It is clear from the report that there is ample scope for extending the internal and external trade in high

quality leaf. It is evident, however, that further expansion of the production and trade will depend on maintaining and improving the quality of Indian tobacco. The report shows how this can be done.

Thanks and acknowledgments are due to a large number of growers, traders, manufacturers and others for their kind assistance in making this report possible by freely giving their time and friendly co-operation to the marketing staffs throughout the country.

Note.—The Government of India should not be regarded as assuming responsibility for all or any of the material contained in this report.

TO THE GENERAL READER

**FOR A QUICK GRASP OF THIS REPORT READ
THE INTER-CHAPTERS AT PAGES 69, 108, 161,
189, 227, 253, 275, 299, 317, 350 and 375.**

OFFICE OF THE AGRICULTURAL MARKETING ADVISER
TO THE GOVERNMENT OF INDIA,
DELHI :
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INDIA'S POSITION IN THE WORLD TRADE.

A.—INTRODUCTION.

Tobacco is possibly the most democratic luxury and as such is "a rich man's solace and a poor man's comfort". The population, rich and poor, of all nations consume tobacco and the tobacco industry is one of the few which suffered practically no set-back during the recent depression period.

Botanically the tobacco plant belongs to the natural order *Solanaceae* which includes also potatoes, brinjals, tomatoes and chillies and to the genus *Nicotiana* (named after Jean Nicot 1530-1600, Agent for the King of France in Portugal who introduced tobacco into France). The genus embraces over at least 35 distinct species which are mostly natives of America, although a few are indigenous to the Pacific Islands and Australasia. They consist in the main of ornamental plants used in sub-tropical gardening and only two of the species, viz., *Nicotiana rustica* and *Nicotiana Tabacum*, are commercially important in India where they were introduced by the Portuguese about the year 1605.

Each of the two species contains several varieties. Howard and Howard in their "Studies in Indian Tobaccos" mention six varieties of *N. rustica* and four of *N. Tabacum*, as enumerated by Comes (1899) and Anastasia (1907) respectively. The *N. rustica* species (see plate facing page 22) is cultivated in India for smoking (mainly in *hookah*) and snuff, and in Syria, Arabia, Persia, Abyssinia, and parts of Europe largely for the manufacture of snuff. The species *N. Tabacum* (see plate facing page 23) is, however, more important and is the one more widely grown throughout the world. International trade in tobacco and tobacco products consists almost wholly of the *Nicotiana Tabacum* species, *Nicotiana rustica* being, as a rule, consumed locally.

B.—WORLD PRODUCTION.

Over three-fourths of the world's area under tobacco is concentrated in two continents, America and Asia. The following figures, extracted from publications of the League of Nations, indicate the distribution of the tobacco area by continents.

World tobacco acreage.

(Thousands.)

				1925-26 to 1929-30 (Average).	1933-34.	1934-35.
Africa	..	..	..	277	252	277
America	..	..	..	2,397	2,346	2,086
Asia (excluding China)		..	..	2,226	2,148	2,215
Europe (excluding U. S. S. R.)	..	..	..	816	704	652
U. S. S. R.	..	..	..	218	465	468
Oceania	..	..	..	2	18	10
Total (excluding China)			..	5,936	5,933	5,708

These figures indicate that the world acreage under tobacco declined during the depression period, the decline being almost wholly due to a reduced acreage in America and Europe (excluding Russia). The area in Africa and Asia has been practically constant during recent years, but in Russia the acreage has more than doubled itself.

Accurate data for area and production in China are not available but the estimates made by the League of Nations indicate the following position which is still highly conjectural :

Area and production of tobacco in China.

Year.		Area (in thousands of acres).	Production (in millions of lb.)
1933	..	1,305	1,389
1934	..	1,292	1,327
1935	..	1,353	1,393
1936	..	1,345	1,404

Taking into consideration the area in China, the world acreage under tobacco in 1934-35, therefore, comes to 7 million acres. Appendix I shows the distribution of the world's tobacco area among the principal countries.

It is evident that half the area under tobacco in the world (excluding China) is concentrated in two countries, the United States of America, with about 28 per cent. of the total, and India and Burma with more than 23 per cent. The other important countries are the Dutch East Indies, U. S. S. R., Brazil, Greece, Philippines, Turkey and Cuba. Among the Empire countries, apart from India, Canada, Rhodesia and Nyasaland are the most important.

It may be observed that though the area under tobacco in the world (excluding China) declined considerably in 1934-35, the average area for the depression period, 1930-31 to 1934-35, was still higher by about two hundred thousand acres as compared with the pre-depression quinquennial (1925-26 to 1929-30) average area. Since 1935-36 the trend in world's tobacco area appears to be on the rise and it may be generally stated that since the beginning of the present century, the world production, trade and consumption of tobacco have risen rapidly. As the Imperial Economic Committee estimated, "For the years 1909 to 1913 the average annual world production of leaf, excluding China and India, was estimated at 2,304 million lb. For the years 1920 to 1922 this average was placed at 2,673 million lb. and in 1926 it is computed that 3,415 million lb. of tobacco leaf were harvested." The corresponding estimate of world production in 1935-36 was 5,000 million lb. excluding China and 6,393 million lb. including China.

Appendix II gives the production of tobacco in the principal countries of the world from which it will be observed that the average total quantity produced in India and Burma during the five years ending 1934-35 amounted to 1,378 million lb. which was somewhat higher than the amount produced in the United States of America and represented 28 per cent. of the total world production, excluding China.

Normally the United States of America stand first among the tobacco producing countries of the world, excluding China, with India as a close second. But since 1932-33 the production of tobacco in India has exceeded that in the United States. In making this comparison, however, it may be noted that unlike other countries the figure of production in India includes not only leaf and stems of the leaf but also sometimes the whole stalk or part of the stalk of the plant which is consumed along with leaf in certain indigenous types of consumption. The international trade in unmanufactured tobacco is almost wholly in leaf and as such the figures of production in India are likely to give a somewhat misleading impression about the volume of Indian production to those accustomed to think of unmanufactured tobacco in terms of leaf* only.

C.—INTERNATIONAL TRADE.

Though India now competes with the United States of America for the first place among the tobacco producing countries of the world, her production is almost entirely used for home consumption, the average annual exports from the country being only about 2 per cent. of the total production. Most of the production in China and Russia and about three-fourths of the production in Brazil is also consumed locally. China was in fact one of the largest importers of tobacco till 1932.

Of the total production in the world, including China, only about one-fifth enters international trade. Appendix III shows

*To the tobacco trade generally, "Leaf" means lamina and stem. "Strips" imply lamina without stem or butt (*i.e.*, the lower portion of the mid-rib).

the exports of tobacco from the principal countries of the world. From this it will be seen that in spite of the huge production, exports from India and Burma come to less than 3 per cent. of the world's exports. The United States of America hold a dominating position in the world's export trade in unmanufactured tobacco and on an average account for about 46 per cent. of the world total. Dutch East Indies and Greece together provide a little over 22 per cent. of the world's total exports, while Turkey accounts for about 5 per cent. The Imperial Economic Committee estimates that altogether the "exports from Empire countries in 1934 amounted to about 6 per cent. of the world total."

The direction of these exports is mainly towards Europe. During 1937, over 70 per cent. of the exports from the U. S. A., almost all the exports from Netherlands E. Indies, 62 per cent. from Greece and 48 per cent. from India were absorbed by countries in Europe, the United Kingdom being the largest single purchaser of the unmanufactured tobacco entering the international trade. 54.5 per cent. and 46.4 per cent. of the unmanufactured tobacco exported from the U. S. A. in 1935 and 1937 respectively was shipped to the United Kingdom. Appendix III gives the imports of unmanufactured tobacco in the principal importing countries of the world.

The chief importing countries, it will be observed, are the United Kingdom, Germany, France and China. Of these, the United Kingdom is the only country where the trend of imports of unmanufactured tobacco is on the rise, even when compared with the imports during the pre-depression period. Till 1932, China was considered to be the third largest importing country but from that year her imports rapidly declined. In 1935 and 1936 she is reported to have imported only 18 million lb. and 25 million lb. of unmanufactured tobacco leaf respectively almost wholly from the United States of America. In addition she is reported to have imported about 10 million lb. of tobacco stalks and stems for use in the manufacture of cheap cigarettes in each of the two years 1935-36 and 1936-37 on account of the high prices of American Virginia tobacco. The following figures compare the imports in the principal countries during the depression period with those of the pre-depression time :

Annual average imports.
(Million lbs.)

Importing country.	Pre-depression period (1925-29).	Depression period (1930-34).	1935.	1936.
United Kingdom	203	211	252	271
Germany	218	183	192	192
China	105	100	18	25
France	92	104	75	66
U. S. A	78	83	85	90
Netherlands	70	71	61	62

These figures indicate a fall in the average imports in Germany and China as against a rise in United Kingdom, France, U. S. A. and Netherlands. The rise in imports in the last two countries is small. The increase in the average imports into France during the depression period was very largely due to the large quantity of tobacco imported in 1930. From that year onwards there has been a decline in the imports and in 1936 France imported only 66 million lb. Part of this decline was due to rise of production of tobacco in France from 69 million lb. in 1930-31 to 87 million lb. in 1934-35. In the United Kingdom the imports have risen from 237 million lb. in 1930 to 271 million lb. in 1936. Apart from the general economic depression prevailing in Central Europe the fall of imports into Germany appears to be largely due to an increase in the German production of tobacco from 46 million lb. in 1930-31 to 75 million lb. in 1935-36. The sudden fall of imports into China has resulted primarily from a rapid increase in recent years in the domestic production of Virginia tobacco that is being used in place of imported leaf from the United States. The production of Virginia flue-cured tobacco in China in 1937 was estimated at about 220 million lb. as against about 180 million lb. in 1935 and 1936 and only 3 to 4 million lb. in 1925. The utilisation of carry-over stocks that are not being replaced by fresh imports also contributed to the decline in imports. The quality of the locally produced flue-cured leaf is, however, reported to be inferior to American leaf in that it has less oil contents and lacks in texture and aroma. It has, however, a bright colour and burns well. Production has been encouraged by increased duties on American imported leaf and an increase in the tax on cigarettes which has forced the manufacturers to use the cheap Chinese leaf in preference to the expensive imported leaf.

India is not a large importer of unmanufactured tobacco. During 1930-31 to 1934-35 her average annual imports including those of Burma by sea were only 3.3 million lb. consisting almost wholly of American tobacco imported from the United Kingdom and the U. S. A. In 1935-36, these imports of unmanufactured tobacco fell to 1.9 million lb. but in 1936-37 they rose again to 3.3 million lb.

CHAPTER I.—SUPPLY.

A.—Indian Supplies.

(1) IMPORTANCE OF THE CROP.

Less than 150 years ago tobacco was comparatively unknown in India's commerce. The first direct reference to tobacco in this country is associated with certain Portugese missionaries who introduced the plant and a knowledge of its properties.

Tobacco was first successfully grown for commercial purposes in Gujerat in Bombay and appears to have been grown throughout the Deccan for about a century before being carried to the rest of India. As in other parts of the world, tobacco passed through a period of persecution and its ultimate complete distribution throughout India is only another example of the ready way in which profitable new crops or appliances are absorbed into the agricultural and social economy in this country.

Tobacco is one of the important cash crops of Indian agriculture, although it forms, on an average, only about 0.4 per cent. of the total sown area in British India. The following statement shows the figures of area and production as published, and hypothetical value of the tobacco crop during the past ten years.

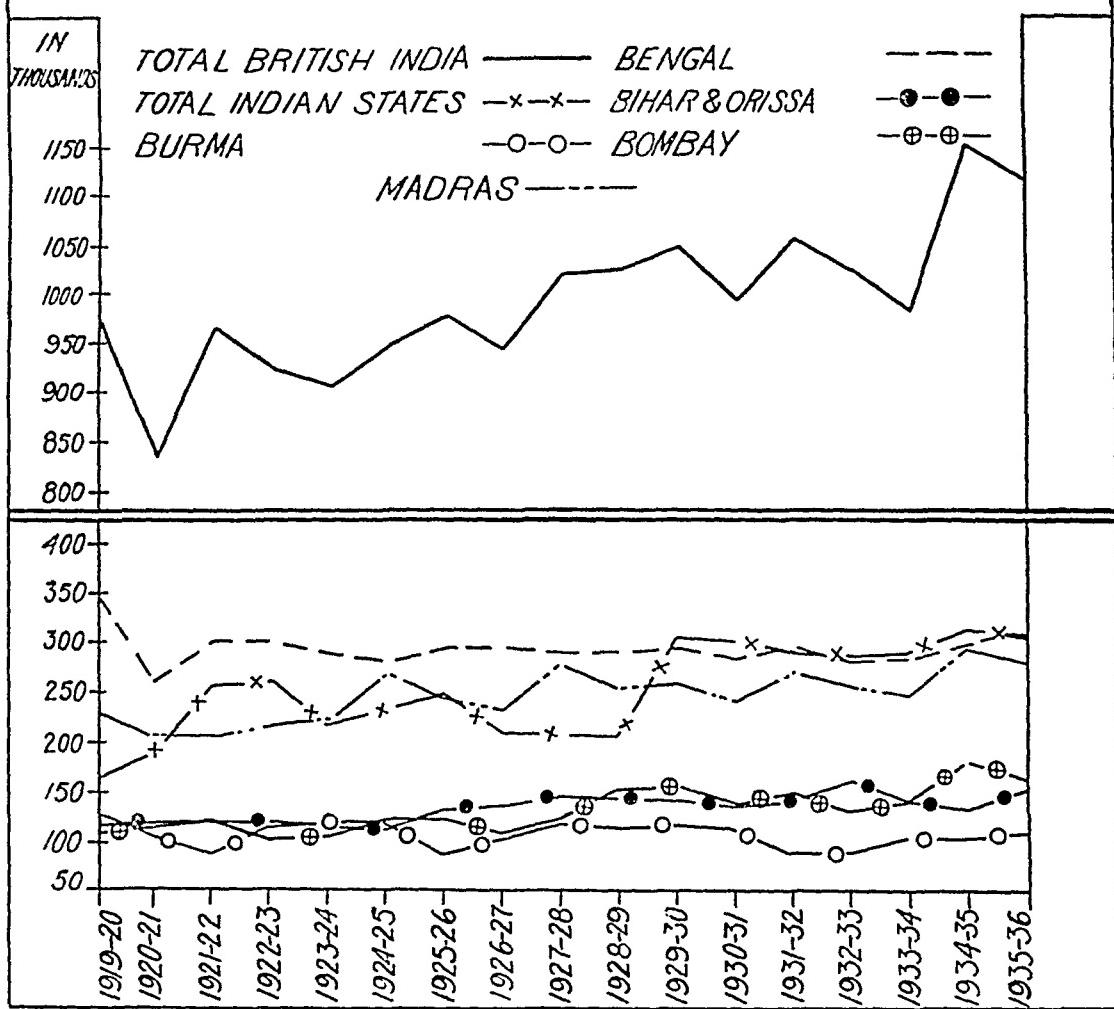
Area, production and value of tobacco crop in India and Burma.

Period.	Area*. (Thousand acres.)		Production*. (Thousands tons.)		Value†. (Crores of Rupees.)	
	India.	Burma.	India.	Burma.	India.	Burma.
1925-26 ..	1,191	86	271	39	15.49	1.41
1926-27 ..	1,117	101	354	45	18.43	2.43
1927-28 ..	1,167	118	550	52	32.19	3.02
1928-29 ..	1,194	114	548	51	31.32	2.52
1929-30 ..	1,200	117	577	52	31.90	2.05
Average of 5 years.	1,174	107	460	48	25.87	2.29
1930-31 ..	1,146	111	524	49	19.97	1.33
1931-32 ..	1,192	87	584	39	19.08	0.70
1932-33 ..	1,163	88	577	39	17.37	0.38
1933-34 ..	1,124	103	516	45	14.31	0.60
1934-35 ..	1,308	102	639	45	18.81	0.63
Average of 5 years.	1,187	98	568	43	17.01	0.73

* *Source.*—Estimates of Area and Yield of Principal Crops in India.

†The estimates of value are rough approximations based on harvest prices of raw tobacco. These figures are, however, highly conjectural in view of the fact that the published figures of area, production and harvest prices are not complete and accurate, as will be discussed later.

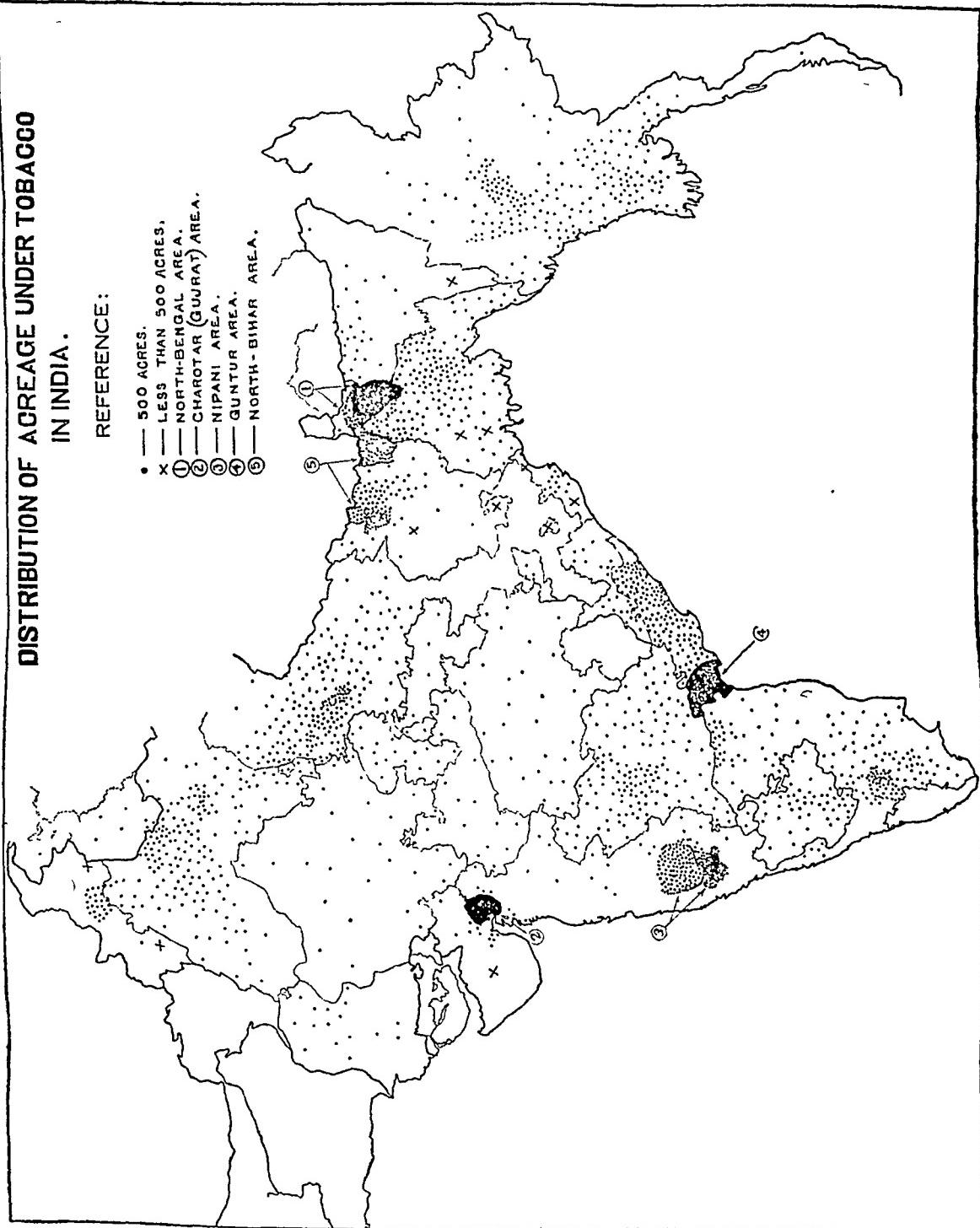
TREND OF ACREAGE UNDER TOBACCO IN IMPORTANT
BRITISH INDIAN PROVINCES, INDIAN
STATES & BURMA.



DISTRIBUTION OF ACREAGE UNDER TOBACCO
IN INDIA.

REFERENCE:

- 500 ACRES.
- LESS THAN 500 ACRES,
- NORTH-BENGAL AREA.
- CHAROTAR (GUJARAT) AREA.
- NIPANI AREA.
- GUNTUR AREA.
- NORTH-BIHAR AREA.



It will be seen that in *India*, while the area increased by little over 1 per cent. in the second quinquennium, the production increased by over 23 per cent., but the value of the crop declined by about 30 per cent. The sudden increase in production and value of the crop in 1927-28 was almost entirely due to addition of statistics for certain areas for which no figures were available prior to that year.

In *Burma*, the area declined by about 9 per cent. and production by 10 per cent. during the five years ending 1934-35, as compared with the previous quinquennium. The fall in the value of the crop, however, was considerably greater being about 68 per cent.

(2) AREA.

(a) *Total*.—The figures for the years after 1934-35 will be discussed later, but it may be pointed out here that the statistics of area and production for *India* given in the foregoing table are not complete and accurate in that they do not include the acreage and yield in all the provinces and Indian States and that the production figures for certain areas are not correctly recorded, as will be explained later. The tables given in Appendices Nos. IV and V show more correctly the position of area and production in the different Indian provinces and Indian States.

Figures for *Burma* are recorded separately.

The total area under tobacco in *India*, based on the average of the seasons, 1929-30 to 1935-36, is 1,350,000 acres. The share of each of the important provinces and States is given in the following table.

Average area under tobacco.

(Average of 1929-30 to 1935-36).

	Thousand acres.	Percentage of total area in British India.	Percentage of all India acreage.
<i>British India—</i>			
Bengal	293	27·8	21·7
Bihar and Orissa	142	13·8	10·6
Bombay	151	14·3	11·2
Madras	264	25·0	19·5
Punjab	71	6·7	5·2
United Provinces	84	8·0	6·2
Other Provinces	46	4·4	3·4
Total British Provinces ..	1,051	100·0	77·8

Average area under tobacco.

(Average of 1929-30 to 1935-36).

—	Thousand acres..	Percentage of total area in Indian States.	Percentage of all India acreage.
<i>Indian States—</i>			
Baroda	45	15·1	3·3
Cooch Behar	54	18·1	4·0
Deccan States and Kolhapur ..	51	17·0	3·8
Nizam's Dominions	78	26·1	5·8
Mysore	24	8·0	1·8
Other States	47	15·7	3·5
Total Indian States ..	299	100·0	22·2
Total India ..	1,350	..	100·0
Burma	102	..	..

It will be observed from the foregoing table that about 78 per cent. of the tobacco in India is found in British India and the rest in Indian States. Four provinces, *viz.*, Bengal, Bihar, Bombay and Madras, account for a little over four-fifths of the total area in British India and over three-fifths of the all-India area. Bengal is the leading province and contains almost 22 per cent. of the total tobacco acreage in India. This is followed by Madras with 19.5 per cent., Bombay 11.2 per cent., Bihar and Orissa 10.6 per cent., and the Punjab and the United Provinces with 5.2 and 6.2 per cent. of the Indian total respectively.

Although Bengal contains over a fifth of the total area in India, the crop forms only about 1 per cent. of the sown area in the province. The proportion is only 0.6 per cent. in Madras, 0.4 per cent. in Bombay and 0.5 per cent. in Bihar and Orissa.

The average area in Indian States is 299,000 acres, a little over a fifth of the total in India. The largest producers are Nizam's Dominions, Deccan States and Kolhapur, Cooch Behar and Baroda which together account for over three-fourths of the tobacco acreage in Indian States and about 17 per cent. of the all-India area.

(b) *Areas of concentration.*—It will be observed from the map facing page 7 that the tobacco acreage is not uniformly distributed but is concentrated in certain areas which form distinct tobacco growing centres of considerable commercial importance. There are five zones of concentrated production which together con-

tain 797,000 acres or about 55 per cent. of the total tobacco area in India in 1934-35.

(1) *North Bengal area* comprises the districts of Rangpur, Jalpaiguri and Dinajpur of Bengal along with Cooch Behar State. This zone includes nearly four-fifths of the tobacco area in Bengal and in 1934-35 the total acreage was 292,000, which represented about four-fifths of the area in Bengal and Cooch Behar and one-fifth of the total area in India.

(2) *The Charotar (Gujerat) area* comprises three *talukas*, Anand, Borsad and Nadiad of Kaira district of Bombay and also two *talukas*, Petlad and Bhadran of Baroda State. This area represents 50 per cent. of the total tobacco acreage in the Presidency (including Baroda, Kolhapur and other Deccan States), and 10 per cent. of the total area in India. In 1934-35 the acreage amounted to 146,000.

(3) *Nipani area* includes Belgaum and Satara districts of Bombay along with Kolhapur, Sangli and Miraj States. The area accounts for nearly 44 per cent. of the tobacco acreage of the Presidency (including Baroda, Kolhapur and other Deccan States) and 8.8 per cent. of the total area in India. In 1934-35 the acreage was 128,000.

(4) *Guntur area* in 1934-35 amounted to 120,000 acres or 8.2 per cent. of the total area in India. This important cigarette leaf producing area consists of a strip about 25 miles wide along the coast in the Guntur district of Madras, originally confined to south of Kistna river but now extending northwards of this point. The area under Virginia tobacco in Guntur district has been rapidly increasing and is expected to establish a fresh record during the current year (1938-39). Over half the present total production of tobacco in Madras Presidency is concentrated in Guntur district.

(5) *North Bihar (Tirhut) area* comprises the districts of Purnea, Muzaffarpur and Darbhanga in Bihar. This includes over 85 per cent. of the tobacco area in the province and more than $7\frac{1}{2}$ per cent. of the total area in India. In 1934-35 the acreage amounted to 111,000.

Other districts.—Among other districts in Bengal, Mymensingh and Dacca are important and together grow about 25,000 acres.

In Madras, Vizagapatam district is next in importance to *Guntur* and has an average area of 52,000 acres. Coimbatore with 31,000 acres, East and West Godavari 21,000 acres and Madura district with 8,700 acres come next. The districts of Kurnool and Kistna grow about 7,000 acres each. With the exception of the Nilgiris, Malabar and Chingleput which grow practically no tobacco, other districts in Madras have from 1,000 to 4,000 acres each, the more important being Salem, Trichinopoly, Ramnad, Ganjam and North Arcot.

In Bihar, Monghyr district and in Orissa, Cuttack district are important each of them growing about 6,000 acres. The Koraput district of the newly formed Orissa province has 23,000 acres.

In the *United Provinces* there were 100,000 acres of tobacco in 1934-35, the more important districts being Farukhabad, Budaun and Meerut.

In the *Punjab* tobacco occupies a minor position the chief growing districts being Attock, Sheikhupura, Jullunder, Hoshiarpur and Ludhiana. The total area under tobacco in the province in 1934-35 amounted to 88,000 acres.

In the *Central Provinces and Berar* there are only 15,000 acres, while Assam and North-West Frontier Province grow only about 13,000 and 14,000 acres respectively. *Sind* reports an average area of about 5,000 acres and in *Delhi Province* the crop occupies approximately 1,000 acres.

In *Burma* most districts grow tobacco and the more important ones are Toungoo, Henzada, Pakokku, Tharrawaddy, Thayetmyo, Maubin and Myingyan, each having between five and ten thousand acres. The major part of the tobacco area is found along the river Irrawaddy and its important tributaries.

In *Indian States*, apart from Baroda, Cooch Behar, Kolhapur, Sangli and Miraj already referred to, Nizam's Dominions and Mysore are important. The average area in the Nizam's Dominions is about 78,000 acres, which represents .002 per cent. of the net sown area in the State. Mysore has a smaller area concentrated in the north-eastern and south-western parts of the State. The area in Mysore is soon expected to rise on account of the organisation of the Mysore Tobacco Company, Ltd., for the cultivation, curing, etc., of cigarette tobacco in 1937. The company had planted about 2,500 acres under Virginia cigarette tobacco in 1937-38 and expects to grow about 5,000 acres in 1938-39.

Other Indian States grow still smaller areas of tobacco which are of limited commercial importance outside the State limits.

(c) *Fluctuations and trends.*—The area under tobacco in British India has increased by about 14 per cent. during the last 30 years. During the twenty years ending 1923-24, the average area ranged about 920,000 acres, with no very great change from year to year. But since 1924-25 the area has been definitely on the rise (*see Appendix IV and diagram facing page 6*). The pre-war average for the 5 years ending 1913-14 was 919,000 acres, which slightly declined to 918,000 acres during the post-war quinquennium ending 1923-24. The average for the 5 years ending 1928-29 (pre-depression period) was 985,000 acres which further rose to 1,051,000 acres during the seven years ending 1935-36. The increase in 1934-35 was particularly noticeable when the area under tobacco was the highest so far recorded. In 1935-36 the area declined by about 2 per cent. over the preceding year.

In Burma the pre-war average area was 90,000 acres, which rose to 109,000 acres during the five years ending 1923-24. During the next five years ending 1928-29, the average acreage declined to 108,000 acres, which during the seven years, 1929-30 to 1935-36, further declined to 102,000 acres. During the past 17 years, the highest acreage in Burma was recorded in 1919-20 (126,000 acres).

but since that year, the area has declined due chiefly to the loss of the export trade from Burma.

Complete figures, prior to 1928-29, are not available for Indian States. Baroda shows an upward trend. The highest recorded area was 59,000 acres in 1934-35. The average during the pre-depression period (5 years ending 1928-29) was 30,000 acres, which rose to 45,000 acres during the seven years ending 1935-36. In Nizam's Dominions and Mysore the trend of area under tobacco is definitely downwards. During recent years the area in Nizam's Dominions reached its maximum of 201,000 acres in 1921-22 and 1922-23 since when there has been almost a continuous decline. In Mysore the average area during the 5 years ending 1928-29 was 27,000 acres which declined to 24,000 acres during the period of seven years, 1929-30 to 1935-36. During the next few years, however, the area is expected to rise owing to the organisation of the Mysore Tobacco Company, Ltd. In Cooch Behar State the trend of area is on the rise during the past seven years while during the same period the area in Deccan States and Kolhapur has ranged from 50,000 to 52,000 acres.

With regard to individual provinces in British India the following figures indicate the trend of area under tobacco in the four important provinces:

Trend of area under tobacco in important provinces.

Period.	Bengal.†		Bihar and Orissa.		Bombay.		Madras.	
	Area (thousand acres).	Per cent. rise (+) or fall (—) over the preceding average.	Area (thousand acres).	Per cent. rise (+) or fall (—) over the preceding average.	Area (thousand acres).	Per cent. rise (+) or fall (—) over the preceding average.	Area (thousand acres).	Per cent. rise (+) or fall (—) over the preceding average.
Pre-war average (5 years ending 1913-1914) ..	318	..	113	..	*92	..	205	..
Post-war average (5 years ending 1923-1924) ..	297	-6.6	117	+3.5	*110	+19.6	213	+3.9
Pre-depression average (5 years ending 1928-29) ..	290	-2.4	135	+15.4	*126	+14.5	254	+19.2
Average for 7 years ending 1935-36 ..	293	+1.0	142	+5.2	151	+19.8	264	+3.9

* Including Sind.

† As in the case of other crops, the areas under tobacco in Bengal and Bihar are much less accurately known than in other parts of British India.

Bengal thus shows a downward trend. During the past 25 years, the highest recorded area was 342,000 acres in 1919-20. In 1933-34, owing mainly to the loss of export trade with foreign countries, the acreage was only 286,000 acres which rose to 308,000 acres and 307,000 acres in 1934-35 and 1935-36 respectively due mainly to the jute restriction campaign.

In *Bihar and Orissa*, the trend is on the rise. In 1933-34 and 1934-35, however, there was a sudden fall probably due to the increasing acreage of sugarcane as would appear from the following figures relating to the three tobacco producing districts of Bihar—Muzaffarpur, Darbhanga and Purnea—which together contribute over 80 per cent. of the tobacco acreage in the province.

Area under tobacco and sugarcane in Muzaffarpur, Darbhanga and Purnea.

(Acrea).

Year.	Tobacco.	Sugarcane.
1932-33	135,000	52,200
1933-34	114,300	129,900
1934-35	111,100	132,700

There was subsequently a rise in the tobacco area in 1935-36. It may, however, be stated that much of the rise in the reported sugarcane area in 1933-34 was due to a correction of accumulated errors as a result of a special survey of the sugarcane area in North Bihar.

The area under tobacco in the *Bombay Presidency* has increased faster than in other Provinces. The average area during the seven years ending 1935-36 was over 64 per cent. higher than the pre-war average acreage. There has been a steady increase during the last 35 years or more. During the first quinquennium of this century the annual average area in this province was only 70,000 acres, so that the area under tobacco has more than doubled itself during the past 36 years. Almost the whole of this increase took place in the two tobacco zones of the province, the Charotar (Gujerat) area and the Nipani area.

In the *Madras Presidency* the area has risen by about 30 per cent. over the pre-war average. The extent of the crop in the Guntur district, which is the most important and largest tobacco producing district, greatly influences the total Madras crop. Tobacco being a relatively profitable crop, there is a pronounced tendency among the farmers in *Guntur* district to grow as much tobacco as possible, in many cases even without rotation. The area in this district has

risen from 70,000 acres in 1925-26 to 134,000 acres in 1935-36, a rise of over 91 per cent. During 1934-35 the area under tobacco in the province rose by 44,000 acres over the previous year and of this increase, *Guntur* district alone claimed 25,000 acres. In 1935-36, the tobacco acreage in the province declined to 280,000 acres from 292,000 acres in the previous year, but the area in *Guntur* rose to 134,000 acres in 1935-36 from 120,000 acres in 1934-35.

In the *Punjab*, the movement of tobacco area from year to year is erratic, but there is a slow upward trend. The pre-war average acreage was 59,000 acres which rose to 71,000 acres during the seven years ending 1935-36, a rise of 20 per cent. The highest area recorded during the past 30 years was 90,000 acres in 1921-22.

The *United Provinces* showed a decline during the 10 years ending 1928-29, as compared with the pre-war average acreage under tobacco. There has been however a slight improvement during the seven years ending 1935-36, though the movement is irregular. The pre-war average area was 87,000 acres, while the average for the seven years ending 1935-36 was only 84,000 acres, a fall of a little over 3.4 per cent.

(3) PRODUCTION.

(a) *Method of estimation.*—Figures of area under tobacco in different provinces in India, Burma and a few of the Indian States are available for the past several years, but estimates of outturn of tobacco were only published in the year 1926-27 as a result of recommendation of a meeting of the Board of Agriculture held in December 1926 at Pusa. In estimating the production of any crop three factors are considered important, viz., area, standard or normal yield per acre and percentage relation of the annual crop yield to the standard or normal yield per acre and the figure of total production of any crop is arrived at by using the following equation :—

$$\text{Production} = \text{Area} \times \frac{\text{Normal yield} \times \text{per cent. of normal.}}{100}$$

The figures of area are collected by petty revenue officials (called by different names in different provinces like *Talati*, *Patwari*, *Tapedar*, etc.), in the temporarily settled areas and reasonable estimates of acreage under tobacco are available for all the provinces except Bengal, Bihar and a small part of Madras and Indian States where this system is in vogue. In Bengal, Bihar and a small part of Northern Madras, the land is permanently settled and estimates of area are obtained by district officers through the agency of police or circle officers, and as a result the figures of area in the permanently settled tracts are worse than those in the temporarily settled areas.

The standard normal yield is defined as “the average yield on average soil in a year of average character”. To test the accuracy of this standard yield the system of crop cutting experiments is in force in some provinces, while in a few others, no crop cutting experiments appear to have been ever conducted for tobacco.

In Bengal standard yield is taken to mean the average of crop cutting experiments made during a quinquennium by officers of Agricultural Department. The average yield thus arrived at becomes applicable during the next five years as the basis for estimating the annual production. The estimates of percentage relation of the annual tobacco crop to the average or normal are made by district authorities.

In *Bombay* the formulæ for normal yield of several crops were arrived at by a committee of survey experts in 1884. These formulæ are known as "Talukawar crop formulæ" and are used even now for calculating the annual yield of several crops including tobacco by taking into consideration the total area under any particular crop and the *annawari* valuation of that crop. It is not exactly known how the original formulæ were worked out, but the accuracy of estimates of production of tobacco based and published on a formula devised over 50 years ago can be easily imagined. For some time past the authorities in the province have realised that the figures of production of tobacco based on the 1884 formulae are far too high. It is more than likely that the 1884 figures represent the yield of undried green leaf and not the dried produce usually marketed. In 1927-28 a number of crop tests on tobacco were taken by the provincial department of agriculture to arrive at a more correct estimate of standard normal yield, but the results obtained were thought to be rather low and since then no further attempts appear to have been made to revise the 1884 figures. During the course of enquiries on marketing it was observed that figures of actual production of tobacco in *Bombay* were far lower than those published on the basis of the 1884 formula and further enquiries elicited that the published figures are over three times the actual production as can be seen from the following figures :

Estimates of production of farm cured tobacco in the Bombay Presidency, excluding Sind.

(Tons).

Year.	Published estimates based on 1884 formula.	Estimates made during Marketing Enquiry.
1930-31	104,017	34,815
1931-32	141,360	46,800
1932-33	115,169	39,030
1933-34	106,073	33,461
1934-35	144,997	48,345
1935-36	150,557	49,631

The standard normal yield of tobacco in *Madras* is 1,190 lb. per acre fixed in 1919 and never revised since then. Conditions of

production change from year to year and it is therefore obvious that any figure of the estimate of production based on a standard fixed about 19 years ago has to be treated with caution. For example, the standard yield fixed for Guntur district is 1,000 lb. per acre. When this standard was fixed, there was not a single acre under virginia tobacco in *Guntur* district. Of the present area of over 120,000 acres under tobacco in *Guntur* district, two-thirds is under virginia which yields on an average about 750 lb. of raw leaf or about 400 to 500 lb. of processed leaf per acre, the remaining being under country tobacco yielding about 1,200 lb. of raw tobacco. Before this tobacco is offered for sale to manufacturers of cigarettes and cheroots, losses in weight occur on account of driage, stripping and stemming. Such losses are estimated at 35 per cent. in the case of virginia and 40 per cent. for country tobacco. Similar is the case with regard to other districts. 35 per cent. for Ganjam, Vizagapatam and Godawari districts and 10 per cent. for the remaining districts, except Madura, Rannad and Tinnevelly have to be deducted from the published yield figures to arrive at the weight of cured leaf actually produced. Making allowances for these losses in weight it is found that the total production of cured tobacco in the Madras Presidency is much lower than the published figure, e.g.,—

Estimates of production of farm cured tobacco in Madras.

(Thousand tons).

Year.	Published figures.	Estimated actual production of cured leaf.
1930-31	122	101
1931-32	142	119
1932-33	138	115
1933-34	129	107
1934-35	153	128
1935-36	132	116

In *Bihar* the proposal of fixing the standard normal yield for tobacco came up in 1892 and was finally fixed in 1906 at half a ton per acre for the whole of Bihar and Orissa on the basis of the average yield then prevailing in only two districts, Darbhanga and Muzaffarpur. The important district of Purnea appears to have been left out and there has been no revision of the standard normal yield figure during the past 32 years. The annual production is calculated taking into account the area, the standard normal yield and percentage to normal yield of the crop each year.

In Assam the production of tobacco is estimated on the basis of 7.5 cwts. per acre, the average yield worked out some years ago depending largely on the data supplied by Revenue Officers. As a result of crop cutting experiments conducted during the years 1930-31 to 1935-36, the Provincial Department of Agriculture has come to the conclusion that this estimate of average yield per acre was on the lower side and that 10 cwts. per acre would probably represent a more correct average.

In the Punjab, figures of normal or average yield per acre are determined from the results of crop cutting experiments during a quinquennium and these figures then become applicable during the next 5 years. The annual production figures are calculated on the basis of the condition of the crop each year in terms of percentages of average yield.

In the United Provinces, the figures of standard normal yield per acre seem to have never been prepared. On the basis of crop cutting experiments conducted in 12 districts, the Provincial Government prepares every year figures of average yield per acre of dry leaf tobacco in terms of annas, a sixteen anna crop being apparently taken to be equivalent to a normal outturn. But it seems there is nothing on record to show the exact quantity represented by a sixteen anna crop of tobacco and yet the year to year valuation of the crop outturn is made in terms of annas. Another point with regard to production figures for the United Provinces is that published figures refer to the weight of dry leaf while according to the curing practices prevalent in the provinces stalks and stems which are of commercial value are also cured along with the leaf. The stalks and stems are consumed along with leaves in smoking and if only leaves are accounted for in calculating the production, it will be neither correct nor consistent with the usual curing and commercial practices in vogue in these provinces and the total production so calculated will fall short by several thousand tons when compared with the actual figures of exports, imports and consumption. Taking the stalks and stems into account, therefore, the actual production figures differ from those published as below :—

Estimates of production of farm cured tobacco in the United Provinces.

(Thousand tons).

Year	Published figures.	Estimates made during Marketing Enquiry taking into account stalks and stems consumed.
1930-31	..	80
1931-32	..	65
1932-33	..	88
1933-34	..	75
1934-35	..	103
1935-36	..	84

No standard yield figures have yet been prepared for the N.-W. F. P. and the production figures which have not been worked out hitherto are estimated as below, taking into account the area under tobacco and the average yield per acre.

Estimates of production of farm cured tobacco in the N.-W. F. P.

						Tons.
1930-31	..	..	..	..	..	12,000
1931-32	..	..	..	..	..	14,000
1932-33	..	..	..	..	..	8,000
1933-34	..	..	..	..	..	6,000
1934-35	..	..	..	..	..	15,000
1935-36	..	..	..	..	..	18,000

Figures of standard normal yield for Sind do not appear to be available ; possibly they were never worked out. The Provincial Department of Agriculture reports that the average yield may be taken at 1,646 lb. per acre for the whole province. Estimates of production in Sind have been separately published since 1933-34 but these published figures are below those collected during the course of the marketing survey as can be seen from the following :—

Estimates of production of farm-cured tobacco in Sind.
(Tons).

Year:					Published figures.	Estimates made during the course of Marketing Enquiry.
1930-31	..	..	..	..	..	5,000
1931-32	..	..	..	..	..	6,000
1932-33	..	..	..	..	..	5,000
1933-34	..	..	..	..	1,000	3,000
1934-35	..	..	..	..	1,000	4,000
1935-36	..	..	..	..	3,000	6,000

Among the Indian States, Hyderabad appears to be the only State where figures of standard normal yield were fixed in 1931. The annual crop is estimated in terms of annas from which the annual production is calculated. No standard yield figure for Mysore has yet been prepared and the published estimates of production are based on the information collected annually by the local revenue authorities. During the course of marketing survey, however, it was found that these estimates are far too low and that the

actual production is more than double that indicated by the published estimates.

Estimates of production of farm-cured tobacco in Mysore State.
(Tons.)

Year.	Published figures.	Estimates made during the course of Marketing Enquiry.
1930-31	4,000	8,000
1931-32	3,000	8,000
1932-33	3,000	8,000
1933-34	4,000	8,000
1934-35	3,000	7,000
1935-36	3,000	7,000
1936-37	3,000	7,000
1937-38 .. .. .. ..	..	8,000

No standard yields exist for any crop in Baroda. The published estimates are based on the forecast figures supplied by the local Revenue Officers who afterwards submit final estimates. No corrections appear to be made in the published figures after the receipt of the final estimates and these two sets of figures vary considerably as can be seen from the following :—

Estimates of production of farm-cured tobacco in Baroda State.
(Tons).

Year.	Published figures based on preliminary forecast.	Figures based on final estimates.
1930-31	8,000	7,000
1931-32	7,000	8,000
1932-33	8,000	8,000
1933-34	5,000	5,000
1934-35	4,000	11,000
1935-36	18,000	13,000

No estimates of production of tobacco have hitherto been made for any other Indian State except for Khairpur in Sind for which figures of estimated production are being published since 1934-35. Cooch Behar in north Bengal and Kolhapur, Sangli and

Miraj in the south of Bombay Presidency have fairly large tobacco production which has been estimated. Excepting Cochin and Travancore which grow no tobacco, several other States have some area under tobacco and similar estimates have been made for Kashmir, Patiala and other Punjab States, Gwalior, Central India and Rajputana States, Gujarat and Western India States, Madras, U. P. and Eastern States, etc. It is estimated that the figures of area and production of tobacco cover about 94 per cent. of the area under Indian States and the survey embodies about 97 per cent. of the total area of India and Indian States.

In Burma figures of standard normal yield do not appear to have yet been prepared. An average yield figure of 990 lb. of tobacco per acre was fixed by the Commissioner of Settlements and Land Records in 1922 and the annual production is being estimated on the basis of area under tobacco and the average yield of 990 lb. per acre from that year. There is no annual valuation of the crop on percentage or anna basis.

Another important factor in judging the production of tobacco in India is that while international trade in unmanufactured tobacco consists of leaf alone, the internal trade in India very largely consists of leaf and also stalks and stems that are gathered during the course of picking and sold as tobacco. In parts of the Punjab, North-West Frontier Province, Delhi and the U. P. the whole plants are harvested, cured and sold as tobacco. In other cases a large portion of stem and stalk is picked along with the leaf and sold as tobacco. When the question of the publication of estimates of production was first taken up, the provincial authorities were asked to send returns in terms of weight of dry leaf as ordinarily marked by the cultivators, but the weight of stalks and stems were also to be included in the outturn returns in provinces where the stalks and stems have a commercial value. Some provinces, however, where stalks and stems have got a market value supply returns of weight of dry leaf alone, others include both leaf and stalks and stems. Provinces like Madras supply figures of theoretical weight of dried leaf and not cured leaf as sold by growers. It is therefore essential to collect figures on a uniform basis and separately for farm-cured (a) leaf, and (b) stalks and stems if and when these are sold as tobacco along with leaf.

(b) *Average yield per acre (leaf and stalks and stems).*—The yield per acre obviously varies from province to province and from district to district and often from one village to another depending on the variety and type grown, soil, cultivation (irrigated or unirrigated), season and the extent of damage by frost, pests and diseases. The average annual yield of raw tobacco in India as published in the "Quinquennial reports on the average yield per acre of principal crops in India" was 1,179 lb. per acre during the quinquennium ending 1931-32 as against 1,565 lb. per acre prevailing during the 5 years ending 1926-27. Similar figures are published for Bengal, Madras, Punjab, Assam and Delhi. These figures might

be taken as some index of the fluctuation in yields, if provinces are not trying gradually to correct errors in the original basis, but are not quite accurate having been based on faulty standards and varying basis as explained earlier.

As a result of marketing surveys conducted in the several provinces and States it is estimated that the average yield of tobacco during the six years, 1930-31 to 1935-36 was 1,030 lb. per acre in British India and 707 lb. per acre in Indian States or an average of 959 lb. per acre in the whole of India including Indian States. This average yield per acre does not, however, represent the yield of leaf alone as in certain areas, the leaf is harvested along with stalks and stems. The following statement gives the average yield per acre in different Indian provinces and States and Burma and the approximate proportion of stalks and stems included in the total :

Average yield of raw tobacco per acre (Average of 6 years ending 1935-36).

Province or State.	Yield per acre lb.	Percentage of stalks.
<i>British India—</i>		
Assam	1,120	20
Bengal	986	25
Bihar and Orissa	933	25
Bombay	627	..
Central Provinces and Berar ..	640	20
Delhi	2,240	33½
Madras	984	15
North-West Frontier Province ..	2,400	33½
Punjab	920	50
Sind	1,646	33½
United Provinces	2,240	33½
British India average ..	1,030	17½

Average yield of raw tobacco per acre (Average of 6 years ending 1935-36)—contd.

Province or State.		Yield per acre lb.	Percentage of stalks.
<i>Indian States—</i>			
Baroda	..	448	..
Cooch Behar	..	1,120	25
Hyderabad	..	465	33½
Mysore	..	746	..
Other Indian States	..	777	21
<i>Indian States average</i>	..	707	20½
Average for India (including Indian States)		959	18
Burma	..	990	..

The average annual yield per acre in India is 959 lb. of which 18 per cent. or 173 lb. consist of the stalk of the plant. The yield of leaf alone thus comes to 786 lb. per acre.

Apart from the soil, season and cultivation factors, the yield per acre varies in accordance with the type grown and irrigation given. Thus in Guntur district while the per acre yield of raw virginia cigarette leaf is about 750 lb.,* that of country cigarette tobacco is about 1,200 lb. In the U. P. the *hookah* and chewing types yield about 2,300 lb. per acre while the virginia cigarette and *bidi* types grown to a small extent yield only 600—800 lb. and 500—700 lb. per acre respectively. In Mysore, the yield per acre of *bidi* type is 640 lb. per acre, of chewing type 850 lb. while the yield of virginia cigarette leaf is only about 500 lb. per acre. In the Charotar area of Bombay, the irrigated crop yields about 1,500 lb. of *bidi* tobacco per acre as against 750 lb. obtained from an acre of unirrigated land. In the N.-W. F. P. a field irrigated from a well gives about 2,500 lb. of tobacco leaf and stalks and stems per acre while if the field is irrigated by canal water the yield obtained is only 1,640 lb. per acre.

(c) *Total production.*—The annual average production of raw tobacco during the six years ending 1935-36 was 483,000 tons (1,082

*It is reported that during the past 5 or 6 years, the average yield of Virginia flue-cured leaf in Guntur has shown a progressive decline and at present it is very unlikely that the average for the Guntur district as a whole exceeds 500 lb. of useable leaf per acre.

million lb.) in British India and 93,000 tons (208 million lb.) in Indian States. Thus 83.7 per cent. of the production is found in British India and the rest in Indian States (*see Appendix V*). Bengal accounts for 22.3 per cent. of the total production, Madras 19.7 per cent., the U. P. 14.2 per cent., Bihar and Orissa 10.4 per cent., Bombay 7.2 per cent. and the Punjab 5.2 per cent. It may be noted that though Bombay has a larger acreage under tobacco than either the U. P. or B. and O., her production is smaller than in either of the two latter provinces because of the lower yield per acre. Other provinces constitute 4.7 per cent. of the total production.

The Indian States of Hyderabad, Cooch Bihar, Baroda, Mysore and the Deccan States and Kolhapur together produce 72,000 tons on an average or 12.5 per cent. of the average production in India and over three-fourths of the production in Indian States.

The average annual production in Burma is 44,000 tons or about 99 million lb.

(d) *Production in concentrated areas.*—The production of raw tobacco in the 5 zones of concentrated cultivation in 1934-35 is given below :

Name of zone.	Production of raw tobacco.	Percentage to total production in India.
	(Million lb.)	
1. North Bengal (Rangpur, Jalpaiguri, Dinajpur districts and Cooch Bihar State)	327.0	22.9
2. Charotar (Gujerat) area of Bombay (Kaira district and Baroda State)	84.1	5.9
3. Nipani area (Belgaum and Satara districts and Kolhapur, Sangli and Miraj States)	84.8	5.9
4. Guntur district (Madras)	141.8	9.9
5. North Bihar (<i>Tirhut</i> , Purnea, Muzaffarpur and Darbhanga districts)	99.0	6.9
Total ..	736.7	51.5

A little more than half the production of raw tobacco in India is thus concentrated in these five zones. It may be noted that while the North-Bengal zone accounted for 20 per cent. of the total tobacco area in India, it produced 22.9 per cent. of the total production in the country. The Charotar area on the other hand occupied 10 per cent. of the total area, but it produced only 5.9 per cent. of the total

[Facing page 22.

Nicotiana Rustica



A leaf.



A plant.

Facing page 23.]

Nicotiana Tabacum.



A plant.

A leaf.

Indian tobacco. Similar is the case with the other three zones. These differences between the proportions of area and production are due to differences in the estimated yield per acre in the different zones. Of all these 5 zones, Guntur district is assuming increasing importance in view of the rapid expansion of cigarette tobacco cultivation.

(4) QUALITIES AND TYPES.

(a) *Botanical types*.—It is comparatively simple to distinguish the two main cultivated species, viz., *Nicotiana rustica* and *Nicotiana Tabacum*. Apart from the fact that the former has a yellow flower it is generally a more robust and densely growing plant than *N. Tabacum* (see plates facing pages 22 and 23) which has a white or pink flower and an elongated, comparatively smooth and generally pointed leaf as distinct from the thicker somewhat coarse textured leaf of *N. rustica* which is often as broad as it is long and inclined to be rounded at the apex. In the cured state the two species maintain their distinctive characteristics. The cured leaf of *N. rustica* is generally dark (or greenish) brown while that of *N. Tabacum* may range to bright lemon in the case of flue-cured Virginia. There is a noticeable difference also in the strength of the tobaccos. In the case of *N. rustica* the nicotine content ranges from three and three quarters to over eight per cent. while the nicotine content of *N. Tabacum* leaf seldom exceeds five and a quarter per cent. and may be as low as half of one per cent.

Although the Howards have recorded* cases of natural cross-fertilisation at Pusa resulting in plants with characteristics intermediate between the two species, the fact remains that from a botanical point of view it is an easy matter to distinguish the two species. Beyond that point, however, it becomes practically impossible to make any clear cut classification by varieties. The types in each species form a complete series in respect of height of plant, length of internodes, size, shape and texture of leaf, etc., so that it is impossible to draw clear lines of distinction. There are however very wide differences in the types in each species ranging, in the case of *N. rustica*, from the dwarf *Naswari* type as grown in the North-West Frontier Province, to the medium *Calcuttiya* of the United Provinces and the Punjab and the tall *Motihari* of Bengal.

Similarly in the case of *N. Tabacum* there is a big difference between the tall somewhat slender *Virginia* types of Guntur and, say, the medium bushy-like *Gandiu* of Gujarat.

The multifarious types are known by local names which may sometimes be that of a village in the district where they are grown or a descriptive name such as *Kongumadari* (long leaf), *Motubandu* (thick leaf), *Anekivi* (Elephant's ear) *Vazhakkappal* (like a banana leaf) and so on. In regard to the nomenclature of the species itself

*Memoirs of the Department of Agriculture in India, Vol. III.

N. rustica is variously known as *Vilayati* (foreign) in Bihar, *Calcuttiya* in the United Provinces, and *Motihari* in Bengal, while *N. Tabacum* is commonly referred to as *Deshi* (local) or as *Jati* in Bengal or *Natu* (country) tobacco in Madras.

In view of the fundamental difficulties of the botanist, it is perhaps not surprising that commercial classifications and descriptions show a certain amount of confusion. The matter lies deeper than that, however, since owing to the amount of natural cross-fertilisation—which is apparently greater in the case of *N. Tabacum* than in *N. rustica*—it is evidently difficult to maintain pure strains of desirable types. This problem is perhaps better dealt with later in the chapter dealing with Seed (see page 362).

On the other hand since the types in any one district tend to become mixed, it will be appreciated that from a commercial point of view this is a fact of considerable importance and as will appear later the trade does in fact recognise the importance of obtaining supplies of certain types of tobacco from certain fairly well defined areas.

(b) *Geographical distribution of botanical types.*—Statistics of area and production (official or otherwise) for the two species (*Tabacum* and *rustica*) or for any sub-types are not available. As a result of enquiries made in the course of the marketing survey the following estimates have been arrived at for the year 1934-35.

*Estimated area under N. Tabacum and N. rustica in India and Burma
1934-35.*

(In thousands of acres).

	N. Tabacum.	N. rustica.	Total.
India	1,116	345	1,461
Burma	102	..	102
Total	1,218	345	1,563

The distribution of the area under each of these two species in different provinces and States is given in Appendix VI from which it will be seen that about 62 per cent. of the area under *N. Tabacum* species is found in peninsular India south of a line drawn from Ahmedabad to Calcutta. Bihar and Bengal (with Cooch Behar) account for about 29 per cent., while the Punjab and U. P. account for another 9 per cent.

The area under *N. rustica* however is less widely distributed being confined almost wholly (*i.e.*, 99 per cent.) to northern India above the line joining Karachi and Calcutta. More than 70 per cent.

of the area under *N. rustica* is concentrated in the United Provinces, Bihar and Bengal while the remainder is distributed over the N.-W. F. P., Punjab, Assam and the Indian States in the Punjab, Rajputana, Central India and the United Provinces. In provinces such as Punjab, United Provinces, Bihar and Bengal, where both the species are grown extensively, there are in general no separate areas for each of the two species and the *N. Tabacum* is grown in the same districts as *N. rustica*.

(c) *Commercial types and descriptions.—Quality characteristics.*—Tobacco is used in many different ways and certain definite quality characteristics are required in the raw and cured tobaccos which constitute the various forms in which it is consumed. Apart from tobacco used for chewing and snuff or in the manufacture of insecticides (an industry which is apparently not carried on in India) the main factors are those associated with smoking quality, e.g., strength, burning character, ash and aroma or flavour. In the first instance, however, the tobacco is judged on the physical characteristics of the cured leaf, e.g., colour, texture, size of leaf, and freedom from blemish.

(i) *Colour* is an important characteristic and is generally taken as an index of strength. It is supposed that the darker the colour the stronger the tobacco and *vice versa*. Cigarette leaf ranges from bright lemon to reddish brown. The dark shades are also used in pipe and shag tobacco.

For cigars and cheroots the leaf should be light to dark brown. In the case of *bidis*, orange to light-greenish brown leaf is preferred although sometimes a proportion of dark brown leaf may be used to give strength to the mixture. No special stress is laid on colour for *hookah* and snuff tobaccos, and for chewing, light leaf is preferred in Bombay, dark brown in Madras and the *Jaffna* chewing tobacco imported from Ceylon into Travancore is very dark.

(ii) *Texture*.—This is also to some extent associated with strength. It is considered that thick leaf contains more nicotine and is stronger than thin leaf.

For cigarettes the leaf should be thin, fine and silky like a thick handkerchief. If it is very thin and papery it won't stand cutting. The leaf should, therefore, have some body. Similar leaf but of medium thickness and pliable is suitable for pipe tobaccos and for use in the cheaper form of cigarettes.

The wrapper leaf for cigars should be thin, pliable with smooth, glossy appearance and the veins should not be prominent. For a straight cheroot the same type of wrapper leaf is required but for the twisted cheroot a leaf of medium thickness is preferable.

For fillers in both cigars and cheroots the leaf may be medium to thick. For making *bidis*, leaf which is fairly thick but not coarse is desirable in order that it may not break down to dust when being made into *bidi* powder which consists of pieces about one-eighth inch in diameter.

When tobacco is used for chewing in the leaf form a medium texture is preferred but a thick leaf should be used when the tobacco is to be made up in a prepared form for chewing. The leaf used for *hookah* tobacco is generally thick and coarse.

- (iii) *Size of leaf*.—For the manufacture of cigarettes the leaf normally ranges from 12—18 inches long and 6—9 inches wide although smaller leaves, of 6 by 3 inches may be used. Similar leaf is used in preparing pipe and shag tobaccos.

The wrapper leaf of cigars and cheroots should be 9—12 inches broad and 2 feet or more long, but for fillers the size of leaf is unimportant.

For certain types of chewing tobacco large sized leaves are preferred but for the preparation of snuff, *hookah* and *bidi* tobaccos size is a relatively unimportant factor.

- (iv) *Blemish*.—The presence of diseased patches or damage on the leaf is particularly objectionable in the case of cigarette, cigar and cheroot tobaccos, but relatively unimportant in other cases.

- (v) *Strength* is perhaps the most important factor in smoking quality. Cigarette tobacco should be mild or neutral with a nicotine content of not more than 2 per cent. and a quarter and ranging as low as half of one per cent.* Pipe and shag tobaccos are generally a little stronger.

Cigars may be mild or strong and the leaf used contains generally from $2\frac{1}{4}$ — $3\frac{1}{2}$ per cent. of nicotine although in the case of the mild Trichinopoly cigars of Madras the nicotine content may range as low as half per cent. The common twisted cheroot of Madras is however much stronger and is made from leaf having a nicotine content ranging up to $5\frac{1}{2}$ per cent.

The Burma cheroot may be either mild or strong and the nicotine content of the leaf used ranges from $1\frac{1}{4}$ to 4 per cent. in local types up to $4\frac{3}{4}$ per cent. in some of the *jati* leaf imported from Bengal.

Bidis as a rule are, if anything, stronger than cheroots with the nicotine content of the leaf ranging from $2\frac{1}{2}$ to $5\frac{1}{2}$ per cent. and an average round about 4 per cent. The nicotine content of chewing tobacco is much the

*The figures used throughout this section are based on the analysis of commercial samples of tobacco leaf of different types drawn from various parts of India and Burma.

same as that used for *bidi** but the leaf used for *hookahs* usually has a nicotine content ranging from 3 to 7 per cent.

- (vi) *Burning character*.—This must be slow, regular and continuous. Evenness of burning is particularly important in the case of cigar leaf.
- (vii) *Ash*.—It is important that the ash should be of a whitish colour in the case of good cigarette, cigar, cheroot and *bidi* tobaccos but in the case of *hookah* tobacco colour of ash is unimportant.
- (viii) *Aroma or flavour*.—This is difficult to define. It should, however, be pleasing and characteristic of the type of tobacco. In every case the leaf used should be free from excessive pungency or objectionable—e.g., earthy—flavours or unusual aromas. For example, a “Turkish” aroma however good would be regarded as objectionable in leaf intended for the manufacture of “Virginia” cigarettes.

From what has already been said regarding the characteristics of *Nicotiana Tabacum* and *Nicotiana rustica* it will be clear that the quality required for cigarette, pipe, shag, cigar, cheroot and *bidi* tobaccos cannot be found in the *Nicotiana rustica* species. This species, therefore, is only suitable for use in the preparation of hookah, chewing and snuff tobaccos although a small amount of a *N. rustica* variety with a high nicotine content is sometimes used in *bidi* mixtures to bring the strength up to average.

(d) *Estimates of area and production by different commercial types and methods of curing*.—International trade in tobacco now consists of leaf of definite types of *N. Tabacum* species, but in India figures of area and production by different species (*N. Tabacum* and *N. rustica*) and types (cigarette, cigar, *bidi*, *hookah*, chewing, leaf, etc.), are not available, officially or otherwise. It is, therefore, a primary essential to classify the tobacco area and production by species and types to help the development of internal as well as external trade. This would also make it possible to institute a market news service which is conspicuous by its absence in India’s tobacco trade.

As a first step, statistics of estimated production should be collected in respect of the two species, *N. rustica* and *N. Tabacum* and the latter may be sub-divided into different types like cigarette, cigar and cheroot, *bidi*, chewing, *hookah* and snuff. The cigarette leaf may be further classified into (a) Virginia, and (b) *Desi* (*Natu*) each of which should be sub-divided into (i) flue-cured and (ii) sun-cured.

As a result of extensive enquiries made during the course of marketing surveys, the following estimates based on 1934-35 area and production are given for the two species and different types grown in India (see Appendices VI and VII).

*Indigenous form of cigarette wrapped in the leaf of a tree (see pages 327-28).

*Estimated area and production of different types of tobacco in India
(including Indian States).*

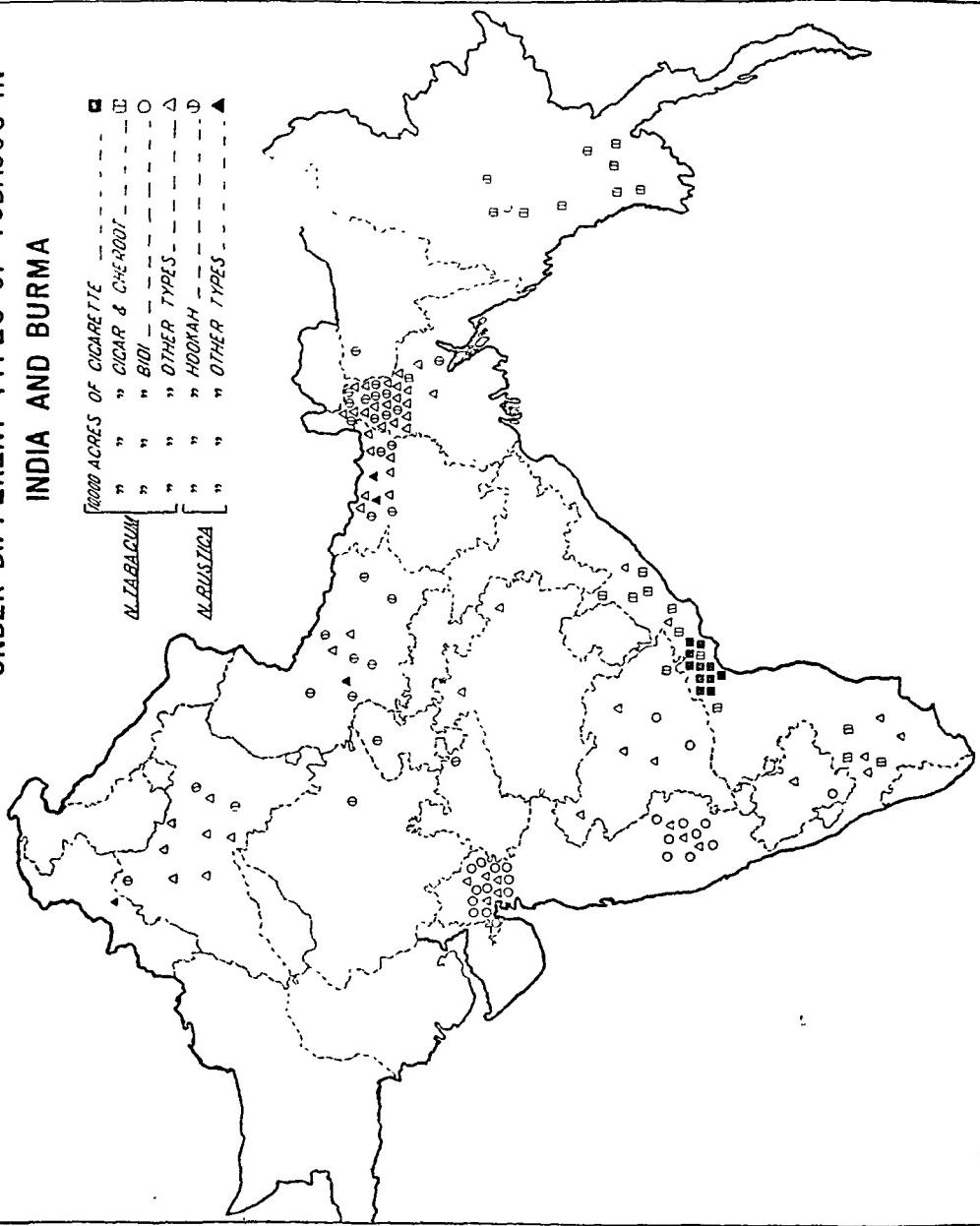
Species and type.	Area.		Production.	
	Thousand acres.	Percent-age.	Thousand lb.	Percent-age.
<i>Nicotiana Tabacum.</i>				
1. Cigarette, virginia	41	2·8	27,173	1·9
2. Cigarette, country	70	4·8	72,668	5·1
3. Cigar	5	0·4	5,044	0·3
4. Cheroot	129	8·8	123,986	8·7
5. <i>Bidi</i>	231	15·8	134,245	9·4
6. Chewing	164	11·2	144,055	10·1
7. <i>Hookah, Chilam, etc.</i>	455	31·1	436,136	30·5
8. Snuff	21	1·4	13,906	1·0
Total ..	1,116	76·3	957,213	67·0
<i>Nicotiana rustica.</i>				
1. <i>Hookah</i>	306	20·9	410,523	28·7
2. Chewing	29	2·0	38,906	2·7
3. Snuff	11	0·8	22,586	1·6
Total ..	346	23·7	472,015	33·0
Grand Total ..	1,462	100·0	1,429,228	100·0

A little over three-fourths of the area and two-thirds of the production in India are thus of *N. Tabacum* species. It will be observed that the production of virginia cigarette tobacco for which there is international demand is just about 2 per cent. of the total

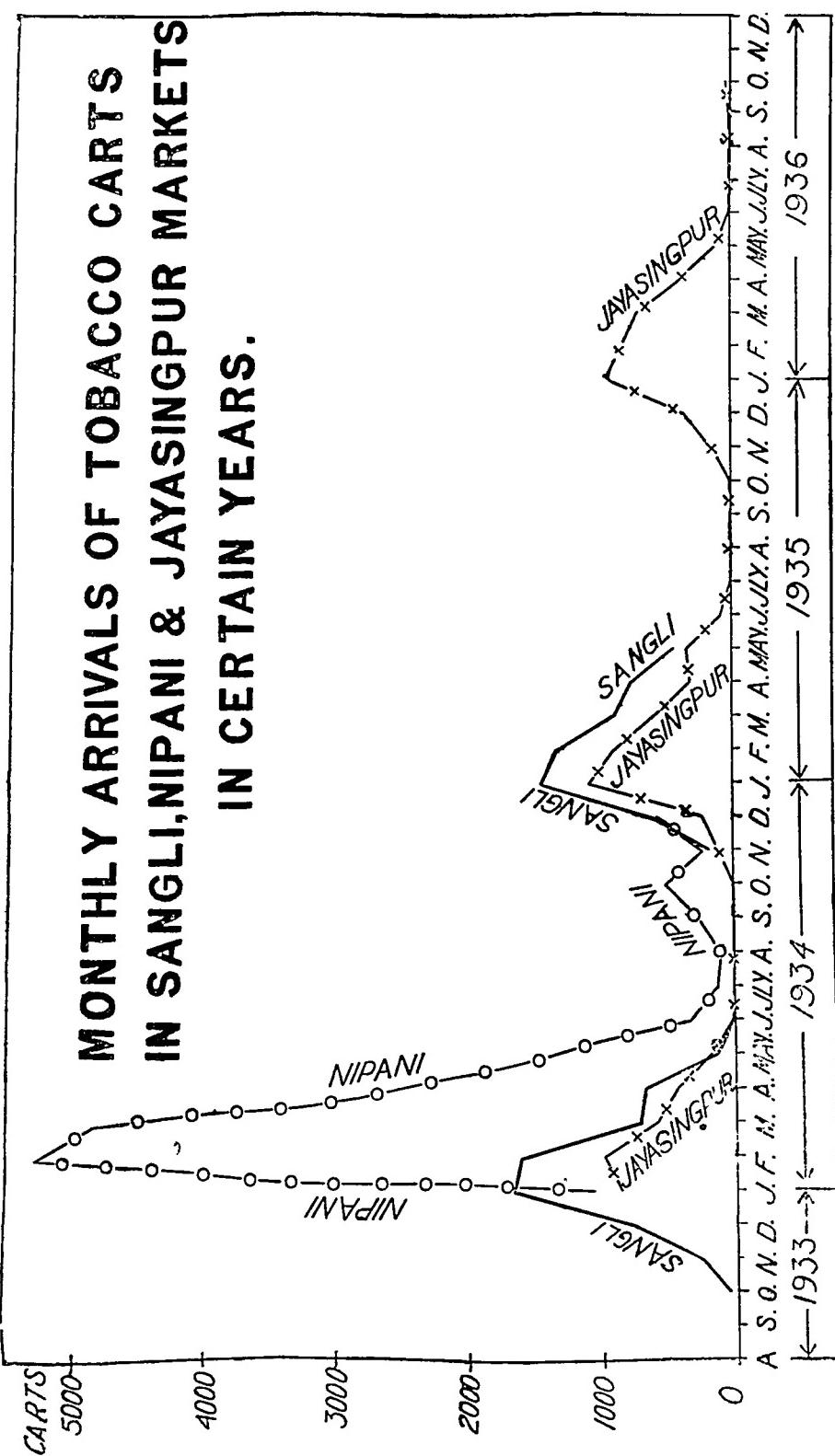
MAP SHOWING THE DISTRIBUTION OF AREA
UNDER DIFFERENT TYPES OF TOBACCO IN
INDIA AND BURMA

LAND ACRES OF CIGARETTE - - - - - □
" " CIGAR & CHEESE - - - - - □
" " BIDI - - - - - ○
" " OTHER TYPES - - - - - △
" " HOOKAH - - - - - ◇
" " OTHER TYPES - - - - - ▲

■ TABACUM
■ NICOTICA



MONTHLY ARRIVALS OF TOBACCO CARTS
IN SANGLI, NIPANI & JAYASINGPUR MARKETS
IN CERTAIN YEARS.



There is a larger production of country cigarette tobacco for which the demand is mostly local, only about 10 to 15 per cent. of the crop being exported, largely to Japan. The other types are intended very largely for internal consumption.

In Burma, all tobacco produced is of *N. Tabacum* species, the principal types being cheroot, *bidi* and chewing. The following figures give the estimated area and production of these three types based on 1934-35 area :—

Estimated area and production of different types of tobacco in Burma.

Type.	Area.		Production.	
	Thousand acres.	Percent-age.	Thousand lb.	Percent-age.
<i>N. tabacum.</i>				
1. Cheroot	84	82·4	83,160	82·4
2. <i>Bidi</i>	13	12·7	12,870	12·7
3. Chewing	5	4·9	4,950	4·9
Total	102	100·0	100,980	100·0

In view of the fact that production figures in Burma are based on a flat average yield of 990 lb. per acre fixed as early as 1922, the estimates of production for the three different types are highly conjectural.

Methods of curing determine to a large extent the quality of tobacco leaf, particularly with regard to colour and texture, and hence statistics of international trade in unmanufactured tobacco specify not only the types but also give information with regard to the method of curing adopted for preparing the tobacco leaf for the market. Information on this point also is completely lacking for any part of India or Burma, officially and otherwise. The importance of such information can be easily imagined when it is stated that in the United Kingdom, which is India's principal market for unmanufactured tobacco as will be shown later, about 95 per cent. of the imports from the U. S. A. are of virginia flue-cured type.

Estimates as well as geographical distribution (see map facing page 28), based on 1934-35 figures, regarding the area and production of different types of tobacco cured by different methods are given in Appendices VIII and IX and the following summary indicates the approximate production of the different types cured by different methods.

Estimated production in India of different types of tobacco cured by different methods (1934-35).

(Thousand lb.)

Species and type.		Flue cured.	Rack cured.	Ground cured.	Pit cured.	Total.
<i>Nicotiana Tabacum.</i>						
1. Cigarette virginia ..		25,830	1,343	..	..	27,173
2. Cigarette country ..		3,438	65,335	3,895	..	72,668
3. Cigar .. ..		..	5,044	..	..	5,044
4. Cheroot .. ..		..	123,498	488	..	123,986
5. <i>Bidi</i> .. .. ..		..	9,467	124,778	..	134,245
6. Chewing .. .. ..		..	40,802	84,399	18,854	144,055
7. <i>Hookah, Chilam, etc.</i> .. ..		..	60,050	314,512	55,574	436,136
8. Snuff .. .. ..		..	4,290	9,616	..	13,906
Total ..		29,268	315,829	537,688	74,428	957,213
<i>Nicotiana rustica.</i>						
1. <i>Hookah</i> .. .. ..		..	39,720	370,803	..	410,523
2. Chewing .. .. ..		..	..	38,906	..	38,906
3. Snuff .. .. ..		..	..	22,586	..	22,586
Total ..		..	39,720	432,295	..	472,015
Grand Total ..		29,268	355,549	969,983	74,428	1,429,228
Percentage ..		2·0	24·9	67·9	5·2	100·0

Thus only 2 per cent. of the total production is of flue-cured type for which there is an increasing demand in the world market. The production of rack-cured tobacco is about one-fourth while that of ground-cured is over two-thirds of the total.

In *Burma* all tobaccos intended for *bidi* making and chewing are ground-cured. Out of the total production of 83,160,000 lb. of cheroot tobacco the estimates for rack-cured are 24,750,000 lb., the rest, i.e., 58,410,000 lb. being ground-cured.

(e) *Geographical distribution of commercial types.*—(i) *Cigarette types.*—The principal types of cigarette tobacco are the Virginia and country (*Natu* or *Desi*). Adcock and Harrison Special are the chief Virginia varieties, the latter being by far the most important.

Adcock was considered to be one of the best cigarette tobaccos of the United States of America and was first introduced into India by the Indian Leaf Tobacco Development Co., Ltd., in the Guntur area where it was found to grow well, give a satisfactory yield and cure to a good light colour. The plant is of medium height with medium internodes, leaves sessile, elliptical, smooth, dark green and thin.

The *Harrison Special* variety was also introduced by the Indian Leaf Tobacco Development Co., Ltd., into the Guntur area where it has almost entirely displaced *Adcock*. The plant is taller than the *Adcock*, more vigorous and stands better the high temperatures. The leaves develop a better yellow colour in curing and the colour is considered to keep better during storage. The yield obtained is also better than *Adcock*.

The cultivation of Virginia cigarette tobacco is confined almost entirely to the Guntur district and to a small extent in Kistna and Godavari districts of Madras Presidency. Small areas ranging from 100 to 200 acres are grown in Satara (Bombay), and Saharanpur and Jhansi (U. P.). Sind used to grow about 250 acres but the cultivation has now practically disappeared. In Mysore the area is increasing being about 2,500 acres in 1937-38 and estimated at about 5,000 acres in 1938-39. In Guntur district also the area has increased and was estimated at 50,000 acres in 1936-37 and 80,000 acres in 1937-38. In previous years North Bihar used to produce a fairly large quantity but the cultivation has now been given up owing to the unsatisfactory flavour flue-curing.

Country (Natu or Desi) tobacco used in the manufacture of cheaper forms of *cigarettes and pipe and shag tobacco* is the local tobacco grown almost wholly in the districts of Guntur in Madras Presidency and Muzaffarpur in Bihar. Different local names are given in the two districts. Thus in Guntur district it may be called *Thokkaku* (narrow leaf with tendril like tip), *Desa Vali* (moderately narrow leaf) and *Dakshinarthi* (broad leaf). In Bihar it is known as *Bonri* (thick and dark leaf) or *Chhuria* (medium and yellowish brown leaf). The country (*Natu*) tobacco of Guntur is the more important for cigarette manufacture. The leaf there is moderately thin in texture, pleasing aroma of mild or neutral strength and the colour ranges from light to dark brown. The light and medium coloured grades are used in the manufacture of cheap cigarettes while the darker grades are sold for pipe and shag tobacco. The length of the leaf is about 15 inches and over while the breadth is between 6 inches and 9 inches. The nicotine and ash contents are about 2 and 18 per cent. respectively. The country (*Desi*) tobacco from Bihar is less important in the cigarette trade. The cured leaf is about 15 inches to 18 inches long and 6 inches to 9 inches broad, yellowish brown in colour and medium texture. It is mild in strength but sometimes has an earthy flavour and on this account cigarette manufacturers have been reducing their purchase of this kind of leaf in preference to the country tobacco from Guntur.

(ii) *Cigar types*.—Cigar leaf produced to a small extent in Madras and Bengal is brown to dark brown in colour, thin texture and strong flavour. The length of the leaf varies from 15 inches to

24 inches and the breadth from 4 inches to 9 inches. Nicotine contents range from $\frac{3}{4}$ to $3\frac{1}{2}$ per cent. while ash contents vary from 16 to $22\frac{1}{2}$ per cent. The important varieties are Pennsylvania, Sumatra and Burmese Havana grown in the Rangpur district of Bengal and Usikappal, grown in Trichinopoly and Coimbatore districts of Madras.

(iii) *Cheroot types*.—The cheroot tobacco grown in Burma has thin to medium texture, brown to dark brown colour and medium strength. The leaf is 15 inches to 30 inches long and 6 inches to 12 inches broad and contains an average of about 2.8 per cent. of nicotine and over 19 per cent. ash. The bulk of the cheroot tobacco grown in Burma belongs to two groups : *Kun-yiva-hse* mostly grown north of Thayetmyo and *Ywet-pya-hse* cultivated principally in the south of Thayetmyo. Both belong to the same variety which yields leaf of medium texture, dark in colour and medium in strength. There is however a difference in flavour and aroma. The other varieties are *Shwegen*, *Burmese Havana* and *Shwe-ta-sok*. The first two have narrow leaves, thin texture and strong aroma. As a result of variations in soil and cultivation conditions, there are a number of sub-groups under each of these varieties. Thus under *Shwegen* the four principal sub-groups are *Shwegen Taung-bat-kan-sai* grown on the banks of Shwegen river and considered to be of best quality with regard to aroma, texture and keeping quality ; *Taung-paw-sai* cultivated on the banks of the " *Ye-kyi Madama-chaung* ", *San-hpai-sai*, along the Kyankkyi-chaung and *Taw-sai* or *Ye-nauk-sai* grown on poorer types of soils.

The *Jati* tobacco grown in north Bengal is largely used in Burma for the manufacture of cheroots. It is commonly known as *Poola Common* in the Calcutta market. The cured leaf of *Jati* is greenish brown in colour, medium in texture and strength, about 15 inches to 22 inches long and 6 inches to 12 inches broad. The average nicotine and ash contents are about 3.82 and 17.2 per cent. respectively. The principal varieties of *Jati* arising from differences in soil and climatic conditions in the different localities are *Bhengi*, *Mena Bhengi*, *Nao-khol*, *Snidur Khots* and *Hingli*. The *Bhengi* variety is the one used largely in the manufacture of cheroots. The other varieties are mostly used for *hookah* and to a considerable extent for chewing and snuff. The " sand leaves ", i.e., the lowest leaves near the ground, of *Jati* tobacco are called *Bispat* and are sometimes used for the manufacture of low-grade cigarettes. The *Bispat* leaves are yellowish to dark brown in colour, thin in texture, about 15 inches to 18 inches long and 9 inches to 12 inches broad.

In Madras the leaf grown in Trichinopoly, Madura, Coimbatore and Guntur districts is used for cheroots as well as for chewing. The colour of the cured leaf is dark brown to almost black, and the texture is thin to medium. The length varies between 12 inches to 30 inches and the breadth between 3 inches to 12 inches in accordance with the district where the tobacco is grown. Thus the *Monna-kappal* variety grown in Madura district has leaf over 27 inches long and 12 inches broad while *Usikappal* of Coimbatore is between 12

inches and 19 inches long and 3 inches to 6 inches broad. The nicotine contents are about 4.75 per cent. and the ash about 17.43 per cent. The local names of the principal varieties grown are *Usikappal* (grown in Trichinopoly and Coimbatore) *Meenampalayam*, *Vattakappal* and *Yerumaikappal* (Coimbatore), *Monnakappal* (Madura), *Lankas* (grown in islands formed in river beds) and *Chebrole* (grown at Chebrole in Guntur district).

(iv) *Bidi types.*—(a) *N. Tabacum*.—*Bidi* tobacco is principally grown in Gujerat and the Nipani areas of the Bombay Presidency and to a small extent in Mysore. The cured leaf from Gujerat is greenish to yellowish brown in colour, thick in texture, of medium strength, about 12 inches to 15 inches long and 5 inches to 9 inches broad. The nicotine and ash contents are about 3 and 19 per cent., respectively. The principal varieties are *Gandiu*, occupying about half the total area under tobacco in the *Charotar* (Gujerat) area and yielding a broad, thick and rather strong and coarse leaf, *Piliu* which gives a narrower and shorter leaf, strong in aroma, *Keliu*, which yields a long and broad leaf, thick in texture and strong in flavour, *Movadiu* having greenish yellow and brown leaves and *Shengiu* with leaves long, narrow and thin.

The *bidi* tobacco grown in the Nipani area is considered to be stronger than that from Gujerat. The colour of the cured leaf is from yellowish to dark brown, sometimes with dark spots, the texture is thick and the length and breadth vary between 12 inches to 18 inches and 6 inches to 9 inches, respectively. The flavour is strong and the nicotine and ash contents are about 4 and 19 per cent., respectively. The principal varieties are *Mirji*, *Nipani*, *Sangli* and *Jawari*. The first three names are those of the neighbouring tobacco markets while the last named variety is grown to a small extent in Sholapur district.

The *bidi* leaf produced in Mysore is yellowish brown in colour, medium in texture and strength, above 15 inches long and from 3 inches to 6 inches broad. The nicotine content averages about 4.93 per cent. and the ash content about 14 per cent. There are only two varieties, broad leaf and narrow leaf each of which is known by different names in different localities, e.g., *Anekivi*, *Choutikudi*, *Kongumadari*, *Kanigalmadari*, *Kathekivi*, *Balepath*, *Jerebandi* and *Motubandi*. These varieties are also used for chewing.

(b) *N. Rustica*.—A variety of this species called *Pandharpuri* is grown to some extent in the Nipani area and used for giving strength to *bidi* mixtures. The leaf is light to dark brown in colour, thick in texture, over 12 inches long and 6 inches to 9 inches broad with a strong flavour as the nicotine content ranges from 4 to 8 per cent.

(v) *Hookah types.*—(a) *N. Tabacum*.—In Assam, the tobacco used for *hookah* is known as *Desi* or *Mitha* or *Jati*. The leaf is greenish brown in colour, thin to medium in texture, moderately strong, and about 18 inches to 20 inches long and 6 inches to 9 inches broad. The thick middle leaves are also used for chewing. There are several varieties the chief of which are *Snidurkhataua*, *Kadamdal*, *Hatikania*, *Chama*, *Patuakhola*, *Daria*, *Sakunia* and *Barapat*.

The bulk of the *Jati* tobacco grown in Bengal and an appreciable quantity of *Desi* tobacco from Bihar already referred to under cheroot and cigarette tobaccos is used for the *hookah*.

In the United Provinces the *Desi* tobacco though primarily used for chewing is sometimes used for *hookah*. It is also known as *Poorbi*. The cured leaf is long and narrow (about 18 inches long and 6 inches broad) greenish to dark brown in colour, thin texture and mild in strength.

The leaf of the *Desi* variety of the Punjab is greenish brown in colour, thin to medium in texture and strength, about 16 inches long and 3 inches to 6 inches broad. A large number of local names are used in different parts of the province but it appears that most of them can be grouped under four heads :—

(i) *Noki*—leaf long, narrow and tapering, tip is very much elongated, mild in smoking, (ii) *Kakkar*—the plant is dwarf, the leaves are thick and broad and possess folds on the surface, strong in smoking, (iii) *Ghora*—the plant is tall. The leaves are broad and thin. The smoking quality is poor, and (iv) *Gidri*—the plant is medium in size and leaves broad, strong in smoking.

The *bidi* tobacco grown in the *Charotar* (Gujerat) and Nipani areas of the Bombay Presidency is also partly used for *hookah*.

In Hyderabad (Deccan) the varieties used for hookah, *chuttas* (which resemble large sized *bidis*), *bidis* and twisted cheroots are termed *Zarda* and *Desi*. The leaves of *Zarda* are about 14 inches to 16 inches long and 6 inches broad, thin to medium textured, yellowish to light brown in colour and mild in strength. The variety, however, is not important since it occupies only about 10 per cent. of the tobacco area in the State. The *Desi* variety which occupies 90 per cent. of the area has two sub-types, one having long narrow leaf, about 20 inches to 24 inches in length and 6 inches in breadth, the plant growing to a height of about 3 feet and the other with short and broad leaf about 12 inches to 14 inches long and 8 inches broad, the plant growing to a height of about 2 feet. The cured leaf is dark brown in colour, medium in texture and strong and bitter in flavour. The *Desi* is also known as *Jawari* or *Bhushner* or *Sulehpetti*.

(b) *N. Rustica*.—The principal varieties are *Calcuttya*, *Gobhi*, *Peshawari*, *Motihari* and *Vilayati*.

Calcuttya or *Calcuttia* is grown mainly in the Punjab, Delhi, and the United Provinces. The cured leaf is medium to thick and coarse in texture, greenish brown in colour and strong and pungent in flavour. The length of the leaf is from 6 inches to 12 inches and the breadth from 3 inches to 6 inches or more. The nicotine content is about $3\frac{3}{4}$ per cent., while the ash contents are about 28 per cent. This variety is also grown to a small extent in the Kaira district of the Bombay Presidency.

Gobhi, grown in the Punjab, is similar to *Calcuttya* except that the plant is smaller and the leaves broader and stronger.

The *Peshawari* (also called *Patha Peshawari*) variety is grown in the North-West Frontier Province. The cured leaf is greenish brown in colour, thick and coarse in texture and stronger and more pungent in flavour than *Calcutta*. The length of the leaf varies between 7 inches to 12 inches and the breadth 3 inches to 9 inches. The average nicotine and ash contents are about 4.32 and 25.68 per cent. respectively.

Motihari, grown in north Bengal, is considered to be the strongest *hookah* tobacco. The leaf is greenish brown in colour, thick and wrinkled in texture and strong in flavour. The length is about 10 to 15 inches while the breadth ranges from 6 inches to 12 inches. The nicotine and ash contents are about 6.10 per cent. and 22.35 per cent. respectively. *Motihari* of Bengal is of two kinds named in accordance with the method of spreading the leaves after curing, *Melapat* (leaves spread) and *Jorapat* (leaves not spread). Better quality leaves (usually middle leaves) of *Melapat* are used for chewing, while the rest and the whole of *Jorapat* are used for *hookah*. The sand leaves of *Motihari* are called *Bispat* which is used in the preparation of mild *hookah*. The *Motihari* variety is also grown in Assam and Bihar. In Assam it is also called *Matihar*, *Vilayati*, *Man* or *Hamaku*. In Bihar, *Motihari* is grown almost entirely in the Purnea district. The *Motihari* grown in Assam and Bihar is considered to be less strong and less thick in texture than that of Bengal. The plant and the leaf are similar to *Motihari*, but the cured leaf of *Vilayati* is somewhat smaller and develops a darker colour than *Motihari*.

(vi) *Chewing and snuff types*.—(a) *N. Tabacum*.—There is no variety grown to any appreciable extent solely for chewing or snuff in any part of India except in the North-West Frontier Province where to some extent a variety is grown for snuff alone. Generally the same variety is consumed in a number of forms. Thus the *Desi* variety grown in Bihar is used for *hookah*, chewing and to some extent for cigarettes. The *Desi* tobacco of Assam and United Provinces and the *Jati* of Bengal are also used for chewing. The tobacco grown in Mysore State is used partly for chewing, snuff and *bidis*. Generally leaf with medium to thick texture and pungent aroma is selected for chewing and snuff. Colour plays a less dominant part, but for snuff a darker coloured leaf is selected, presumably as an indication of strength. There are, however, certain varieties which are used only for chewing and snuff. Thus the *Puchakkad* tobacco grown in the South Kanara district of Madras is used only for chewing and snuff (*Puchakkad* being the name of a village). The leaf is dark brown in colour, medium textured, about 23 inches to 26 inches long and about 6 inches broad. *Meenampalayam* (another village name) tobacco grown in Coimbatore district is considered to be one of the best chewing tobaccos in South India. The leaf is dark brown in colour with a whitish bloom, thick in texture, about 23 inches to 26 inches long and 9 inches to 12 inches broad with pungent taste. The *Kali Chopadia* and *Judi* tobaccos grown in Gujarat are also used largely for chewing and to a small extent for snuff. The leaf of *Kali Chopadia* is almost black in colour, thick in texture, over 15 inches long and 6 inches to 9 inches broad. The *Judi* is brown in

colour, medium in texture, 7 inches to 12 inches long and 3 inches to 6 inches broad. Both varieties are strong and pungent.

(b) *N. Rustica*.—Outside the North-West Frontier Province no variety is grown solely for chewing or snuff. In that province, however, *Naswari* is grown for snuff alone. Its cured leaf is greenish brown in colour, thick in texture and strong in aroma. Elsewhere leaves, well developed and thick in texture with pungent aroma and biting taste from *Motihari* and *Vilayati* varieties and sometimes from *Calcuttya* are selected for chewing and snuff. The cheaper grades of snuff are usually made from the tobacco dust of any variety.

(5) QUANTITY RETAINED BY CULTIVATORS.

In the absence of any dependable farm records, it is difficult to estimate the amount of tobacco retained by the cultivators for their domestic use. Unlike the crops like wheat, *jowar* and groundnuts, payment of wages in kind for the work done on tobacco fields is rare, but permanent servants engaged on tobacco farms do get some quantity of tobacco annually for their personal use at the time of harvest. Indebtedness has little influence on the quantity retained by cultivators as the proportion of the total crop kept back for domestic use is small in tracts where the tobacco crop forms a main item of cash income from farming. In other areas where tobacco is grown in small patches and as such mainly for cultivator's own use, indebtedness plays practically no part on the quantity retained on the holding.

Unless grown on a very small area, the grower generally keeps only inferior tobacco and rejections for his personal use. No tobacco is retained by him for manufacture and sale of any tobacco product to any appreciable extent. No cigarette tobacco is retained for domestic use.

The proportion of the crop retained varies in accordance with variations in the size of tobacco crop grown by individual cultivators and as such from farm to farm. Under the circumstances any estimate of the amount of tobacco retained on cultivator's holdings can be at best only a rough approximation.

In Bengal where the crop forms an important source of cash income in the tobacco producing areas, the quantity retained on holdings comes to 1.1 per cent. of the total production. On the other hand in Bihar and Orissa where the growers' tobacco fields are smaller the proportion comes to 6.25 per cent. In Bombay the proportion is still larger, viz., 11.0 per cent., while in Madras the average quantity estimated as retained comes to about 10.2 per cent. of the production. In the C. P. and Berar tobacco is grown as a garden crop in small areas, ranging from 0.25 to 1 acre and as such the proportion of the crop retained by growers comes to about 90 per cent. In Assam the proportion is 9.9 per cent. while the figures given for the U. P., Punjab, N.-W. F. P. and Sind come to 3.0 per cent., 19.7 per cent., 4.9 per cent. and 2.4 per cent., respectively. In Baroda about 9.5 per cent. of the production is retained and the proportion in Hyderabad State is 3.4 per cent., the proportions for Mysore, Kashmir

and Patiala being 1 per cent., 5 per cent., and 40 per cent., respectively.

Making allowance for all these variations, it would appear that about 43,200 tons or 7.5 per cent. of the total average production of raw tobacco in India are retained on the cultivators' holdings for domestic use. The balance may be reckoned as the quantity put on the market.

The proportion of the crop retained for domestic use on farms in Burma approximately comes to about 675 tons or 1.5 per cent. of the average annual production, the balance being put on the market for sale.

(6) SEASONAL VARIATION IN THE FLOW OF MARKET SUPPLIES.

Except in the case of Virginia tobacco grown in Mysore and in the U. P., tobacco is normally a cold weather crop, though the periods of sowing and harvesting vary considerably from province to province and in accordance with the type of tobacco grown. The normal periods of sowing, transplanting, harvesting and marketing of different types grown in important areas in India and Burma are given in Appendix X.

The bulk of the tobacco growers are small farmers who dispose of their crop immediately after harvest. It is estimated that more than three-fifths of the tobacco crop produced in India finds its way to the markets in the period from February to July. If not properly stored the quality of tobacco deteriorates considerably during the monsoon and since few growers have adequate storage facilities for storing their tobacco, the great majority prefer to sell their crop before the advent of monsoon. Even in the case of those who can afford to store and hold over the crop, transport by carts to the nearest market or railway station is extremely risky since a small shower during transport by cart might spoil the quality of a whole cartload of tobacco. Hence such people wait till after the early monsoon period is over and offer their produce for sale late in September or early in October. But the proportion of farmer's crop sold so late after harvest is extremely small, probably not more than 5 per cent. of the total. Conditions in the chief producing areas vary to a considerable extent and it would be best to describe them in brief individually.

In Bengal the crop begins to flow in the market soon after harvest, that is from March and continues up to October. The months of maximum market supplies are May to July. About 80 per cent. of the crop is disposed of by farmers during this period.

In the *Charotar* area of the Bombay Presidency the earliest tobacco crop is ready for the market late in December and from this time onwards supplies of newly harvested tobacco crop begin to arrive in the market. The largest supplies are available with the growers during the months of March and April. In May these supplies begin to decline and by the end of June the farmers in this area

have sold almost the whole of their tobacco crop, excepting in the case of a few well-to-do growers. With the commencement of monsoon late in June, the flow of supplies from the villages ceases almost completely. One of the reasons is the very unsatisfactory condition of roads in this tract during the rains where some of the villages become totally inaccessible for several weeks during the monsoon. After the close of the monsoon from October, the small remnants of tobacco stocks begin to move until the new crop is ready again.

In the *Nipani* area market supplies are greatest in February and March (see diagram facing page 29). From April the arrivals begin to decline and by June they drop almost to nothing in the important Sangli and Jayasingpur markets. From this time onwards practically no supplies are received in these two markets till October. In the *Nipani* market, however, which is one of the most important tobacco markets in India, small supplies are received even during the monsoon months. The following are the figures of arrivals in *Nipani* market in 1934 :--

Arrivals of tobacco carts in Nipani market.*

January	..	..	..	1,065
February	..	..	..	5,276
March	..	..	..	4,849
April	..	..	..	2,865
May	..	..	..	1,493
June	..	..	..	347
July	..	..	..	197
August	..	..	..	110
September	..	..	..	278
October	..	..	..	513
November	..	..	..	248
December	..	..	..	569

Thus over four-fifths of the arrivals occur during February to May, the months of maximum supplies being February and March.

In the *Guntur* area of the Madras Presidency the virginia cigarette tobacco is cured in January and February and over 90 per cent. is sold off by the growers by the end of March to exporters and manufacturers. The remaining small proportion is held over by big growers who export to foreign countries on their own account. The country cigarette tobacco is sold off to merchants, exporters and manufacturers from April to June. There are extremely few growers who retain or export this type of cigarette tobacco on their own account. Some time elapses before the tobacco purchased from growers is exported outside the *Guntur* district on account of the

*One cart contains approximately 18 maunds of tobacco.

time taken in processing the leaf before export or sale to manufacturers. The average monthly outward traffic from Guntur district is indicated below :—

Approximate monthly outward traffic in unmanufactured tobacco from Guntur district.

(In Maunds.)

January	..	..	..	20,465
February	..	..	..	20,153
March	..	..	..	50,785
April	..	..	..	29,046
May	..	..	..	43,445
June	..	..	..	33,112
July	..	..	..	32,723
August	..	..	..	41,406
September	..	..	..	39,614
October	..	..	..	42,378
November	..	..	..	10,725
December	..	..	..	8,393

Thus about one-third of the outward traffic occurs in March to May, when almost the only exports are of Virginia cigarette tobacco and another one-third during August to October which correspond to exports of country cigarette tobacco to Japan and other countries. The outward traffic in November and December consists almost entirely of country cigarette tobacco while the exports during January, February and June and July are partly of virginia and partly of country cigarette tobacco.

In Bihar, the harvesting commences in the first week of February and goes on till the end of March, the work being in full swing about the third week of February. The curing of the leaf starts immediately after harvest and continues for 4 to 6 weeks. The cured crop commences to come in the market by about the end of March and the maximum supplies in the market are available from about the middle of May to the middle of June. Over four-fifths of the crop is sold by the growers before the middle of June when the monsoon sets in. The remaining crop is offered for sale by the end of early monsoon, i.e., end of September or early October.

In other areas also sale within two or three months after harvest is the commonest practice. In Assam about three-fourths of the crop is sold in May to July and the remaining quantity during the following two or three months. In some districts, particularly in

Goalpara, there are few growers who hold over small surpluses which are sold in small lots, say, 2 to 5 seers, in the local markets whenever they are in need for cash for buying household requirements like oil, salt, fish, etc. In the *C. P. and Berar* most of the crop being retained by growers for domestic use, there is no regular market for local tobacco. The small surplus is sold in village bazars mostly in October and November. The most common practice with the growers in the *Punjab* is to sell the crop in one lot immediately after harvest. About 80 to 90 per cent. of the tobacco is disposed of by the farmers from June to October. In the *U. P.* also, the same practice is followed and over three-fourths of the crop is sold from May to August. Trade in tobacco during these four months is quite brisk and figures of outward traffic in the principal tobacco markets in the province (Soron, Cawnpore, Farrukhabad and Hargaon) show that over half the average annual outward bookings in tobacco occur during this period. The months of high market supplies are June and July.

In *Baroda State* the marketing of growers' tobacco commences in January and extends till about the middle of June. April and May are the months of maximum market supplies and it is estimated that about 80 per cent. of the produce is sold off by the farmers before the end of May. The remaining portion comes in the market early in June and again after cessation of the early monsoon by about the end of September and continues till early December. In *Hyderabad State* about 85 per cent. of the tobacco is marketed by producers during the period, March to September, the months of high market supplies being April and May. About three-fourths of the crop in *Mysore State* is sold off during February to June, the movement by rail at important exporting centres like Krishnarajanagar during those five months being about two-thirds of the annual traffic. The small quantity of cigarette tobacco produced in the State is sold in December and January.

In *Burma*, almost all the growers sell their crop immediately after harvest during the four post harvest months, April to July, though the sales commence by about the end of March. Figures of outward traffic at three important markets show that about two-thirds of the average annual exports are sent out by rail during the four months, April to July.

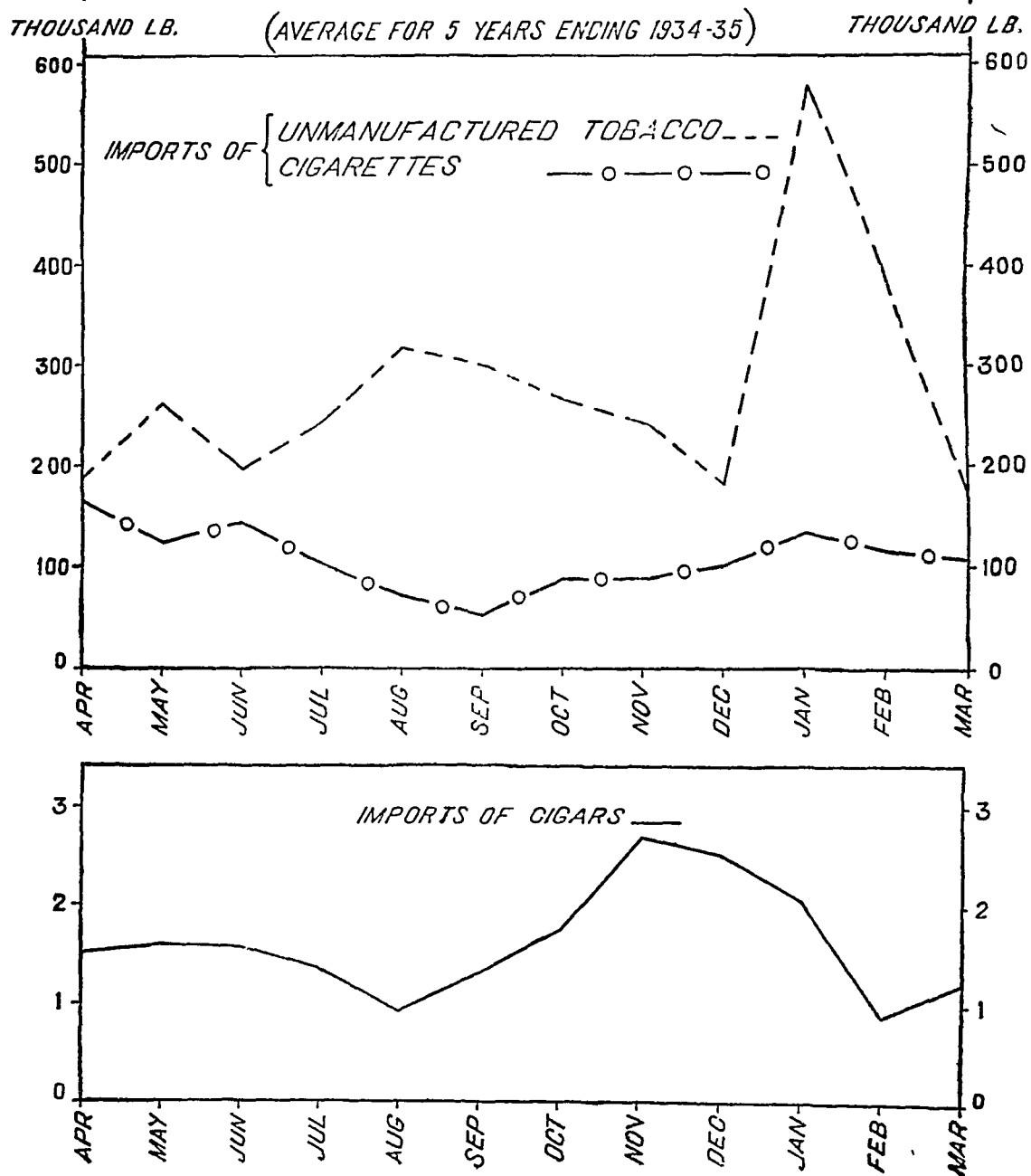
B.—Imports.

(1) IMPORTS BY SEA THROUGH BRITISH PORTS.

(a) *Total tobacco*.—Imports into India consist of unmanufactured tobacco, cigarettes, cigars, manufactured tobacco for pipes and cigarettes and other sorts of tobacco products (see Appendix XI).

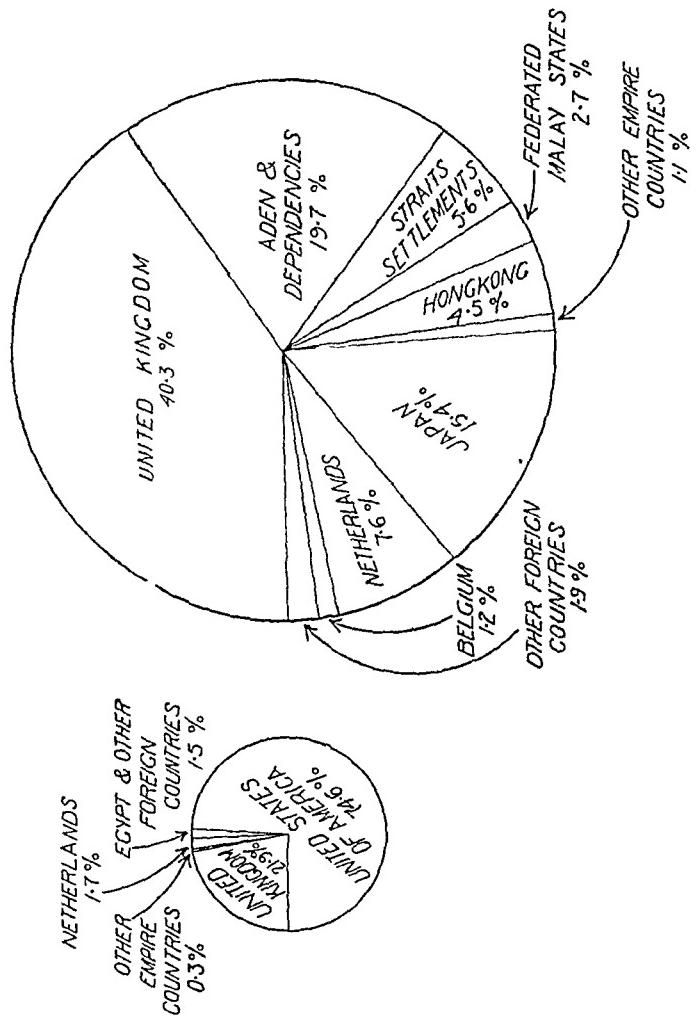
The total average annual imports into India and Burma of all types of unmanufactured and manufactured tobacco are 4.8 million lb. valued at 95.3 lakhs of rupees. Since 1930-31 the general

AVERAGE MONTHLY IMPORTS INTO BRITISH INDIA & BURMA.



SOURCES OF IMPORTS OF
UNMANUFACTURED TOBACCO
INTO BRITISH INDIA.

DESTINATIONS OF EXPORTS OF
UNMANUFACTURED TOBACCO
FROM BRITISH INDIA.



NOTE :—
THE TWO CIRCLES REPRESENT THE RELATIVE VOLUME OF IMPORTS & EXPORTS OF UNMANUFACTURED TOBACCO.

trend of imports has been on the decline although 1936-37 and 1937-38 recorded a rise. The following are the figures :—

Imports of unmanufactured and manufactured tobacco in India and Burma.

Period.	Quantity (million lb.).	Value (lakhs of rupees).
Pre-war average	3·2	71·1
War-average	3·6	132·4
Post-war average	6·3	222·9
1925-26 to 1929-30 average	10·2	261·0
1930-31 to 1934-35 average	4·8	95·3
1935-36	2·9	61·6
1936-37	4·3	80·8
1937-38	4·3	84·4

It will be apparent that as compared with the imports during the period immediately after the war, the tobacco imports during the quinquennium 1930-31 to 1934-35 declined by 23.8 per cent. in quantity and 57.2 per cent. in value. As compared with the pre-depression average (1925-26 to 1929-30) the fall has been 53 per cent. in quantity and 63 per cent. in value. The disproportionately large decline in value is explained by the fact that during the period 1930-31 to 1934-35, the imports of the more expensive items like cigarettes, cigars and pipe tobaccos declined to a larger extent than those of unmanufactured tobacco.

The average proportion of the imports of different types of tobacco and tobacco products is as follows :—

Proportion of imports of different types of tobacco and tobacco products.

Type.	For 5 years ending 1929-30.		For 5 years ending 1934-35.	
	Quantity.	Value.	Quantity.	Value.
	Per cent.	Per cent.	Per cent.	Per cent.
Unmanufactured tobacco	50·9	15·7	69·6	39·3
Cigarettes	46·0	77·2	27·2	51·5
Cigars	0·3	0·7	0·4	1·0
Pipe and cut tobaccos	2·4	5·8	1·9	6·2
Other sorts of manufactured tobacco ..	0·4	0·6	0·9	2·0
Total	100·0	100·0	100·0	100·0

The enormous fall in the proportion of imported cigarettes to the total imports and the rise in the proportion of imports of unmanufactured tobacco are apparent. About 97 per cent. of the quantity imported consisted of unmanufactured tobacco and cigarettes only, during both the quinquenniums, while the value of these two types ranged from 91 to 93 per cent. of the total imports.

(b) *Unmanufactured tobacco.*—(i) *Quantity and value.*—Unmanufactured tobacco is the most important item in the total quantity of imports. The annual average imports of unmanufactured tobacco amount to about 3.35 million lb., valued at about 37.5 lakhs of rupees.

The most important ports of arrivals are Madras and Calcutta. Bombay imports small quantities, the average annual imports being about 186,000 lb. Karachi takes the smallest quantity, the imports in 1934-35 being only 62 lb. Imports into Rangoon from foreign countries are small and occasional.

(ii) *Sources.*—The average proportion of imports received from different countries is as follows :—

Proportion of imports of unmanufactured tobacco from different countries.

Country.	Quantity.	Value.	
		Per cent.	Per cent.
United Kingdom	21.9	19.0
Other Empire countries	0.3	0.2
Netherlands	1.7	2.3
Egypt	0.2	0.3
United States of America	74.6	76.9
Other foreign countries	1.3	1.3
Total ..	100.0	100.0	

Three-fourths of the imported unmanufactured tobacco is therefore received from the U. S. A. while imports from the United Kingdom—mostly in the form of re-exports of American tobacco-leaf from that country—account for about one-fifth of the total. These two sources therefore together constitute about 96 per cent. of the imports (see Appendix XII and diagram facing page 41).

The following were the imports from the United Kingdom and the U. S. A. during the last six years :—

Year.	United Kingdom.	U. S. A.	
		Lb.	Lb.
1930-31	16,557	1,484,800
1931-32	146,507	2,484,397
1932-33	349,558	4,652,527
1933-34	2,021,805	2,091,954
1934-35	1,133,075	1,762,757
Average		733,500	2,495,287
1935-36	358,144	1,500,609
1936-37	169,991	3,060,713
1937-38	37,668	2,965,623

It will be seen that during this period imports from both the countries increased till 1932-33 but during the next year there was a precipitate rise in the imports from the United Kingdom as against a similar fall in the imports from the U. S. A. In 1934-35 and 1935-36 the imports from both the countries declined, the decline in the imports from the United Kingdom being most noticeable. The years 1936-37 and 1937-38 recorded a further precipitate decline in the imports from the United Kingdom. In 1936-37 the imports from the United States of America were more than double those in 1935-36 but in 1937-38 there was a small decline.

The imports from the United Kingdom and the U. S. A. are almost wholly of Virginia used in the manufacture of cigarettes. The leaf received from the Netherlands is used mostly in the manufacture of cigars while that from Egypt is exclusively used in making cigarettes. It is estimated that over 95 per cent. of the total imports are used in the manufacture of cigarettes.

(iii) *Periodicity and trend.*—January and February are the months of high imports and together account for 29 per cent. of the average annual imports (see Appendix XIII and the diagram facing page 40). Imports during July to September are fairly high and account for about 26 per cent. of the total. March, April, June and December, are months of low imports.

There has been a perceptible decline in the imports of unmanufactured tobacco during the past 12 years as will be evident from the following figures and the diagram facing this page.

Imports of unmanufactured tobacco into India and Burma.

Period.	Quantity.		
		(Millions lb.)	Value. (Lakhs of rupees.)
Pre-war average	0.7	4.2	
War average	0.3	3.6	
Post-war average	1.7	2.1	
1925-26 to 1929-30 average	5.2	40.9	
1930-31	1.6	14.4	
1931-32	2.8	29.9	
1932-33	5.1	62.3	
1933-34	4.2	47.3	
1934-35	3.0	33.6	
Average	3.3	37.5	
1935-36	1.9	27.8	
1936-37	3.3	44.8	
1937-38	3.1	41.5	

It will be seen that though the quantitative imports during the past eight years have been lower than those during the pre-depression period (five years ending 1929-30), they are still high when compared with the pre-war, war and post-war averages.

It has already been noted above that 96 per cent. of the imports into India and Burma are received from the United Kingdom and the U. S. A. The United Kingdom does not produce any tobacco and almost all the unmanufactured tobacco received from that country is American. The American tobacco is used in this country almost wholly in the manufacture of cigarettes, the consumption of which has considerably increased during the post-war years. The following figures show the rise in the imports from the U. S. A. since the pre-war years.

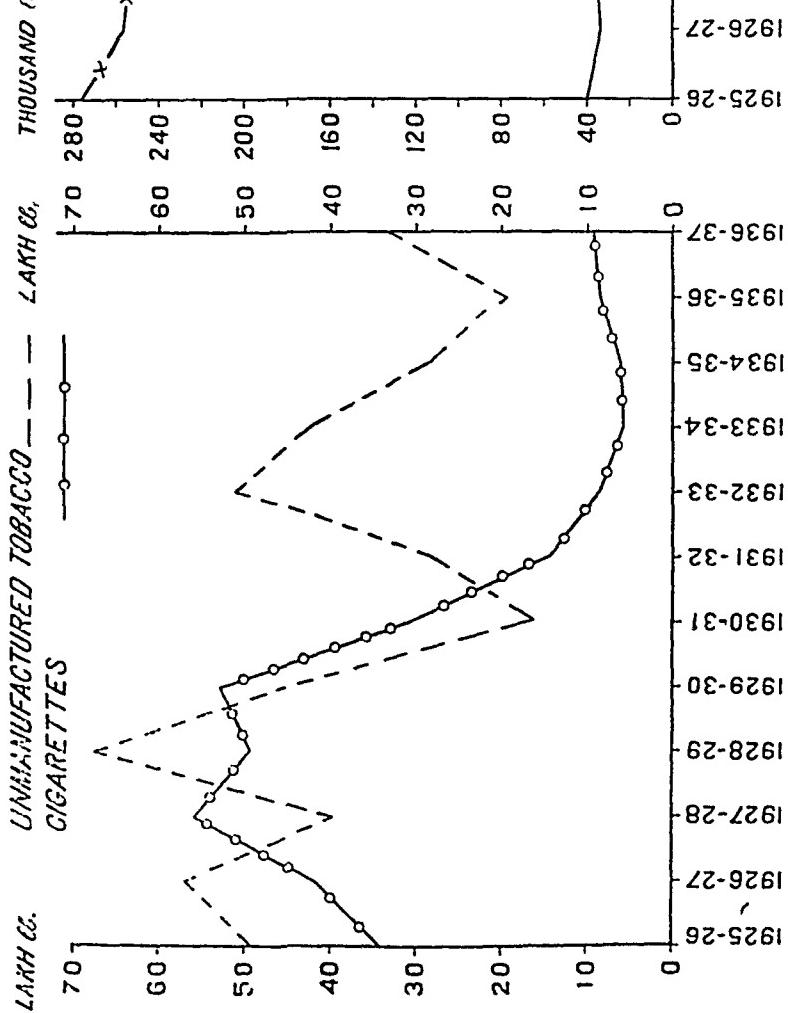
Imports of unmanufactured tobacco from the U. S. A.

		Million lb.
Pre-war average .. ..	.. ..	0.3
War average .. ..	.. ..	0.03
Post-war average .. ..	.. ..	1.0
Pre-depression average .. ..	.. ..	5.4
Average for 5 years ending 1934-35 .. ..	.. ..	2.5

The precipitate fall in the total imports in 1930-31 may be accounted for by the fact that the year was the first year of depression.

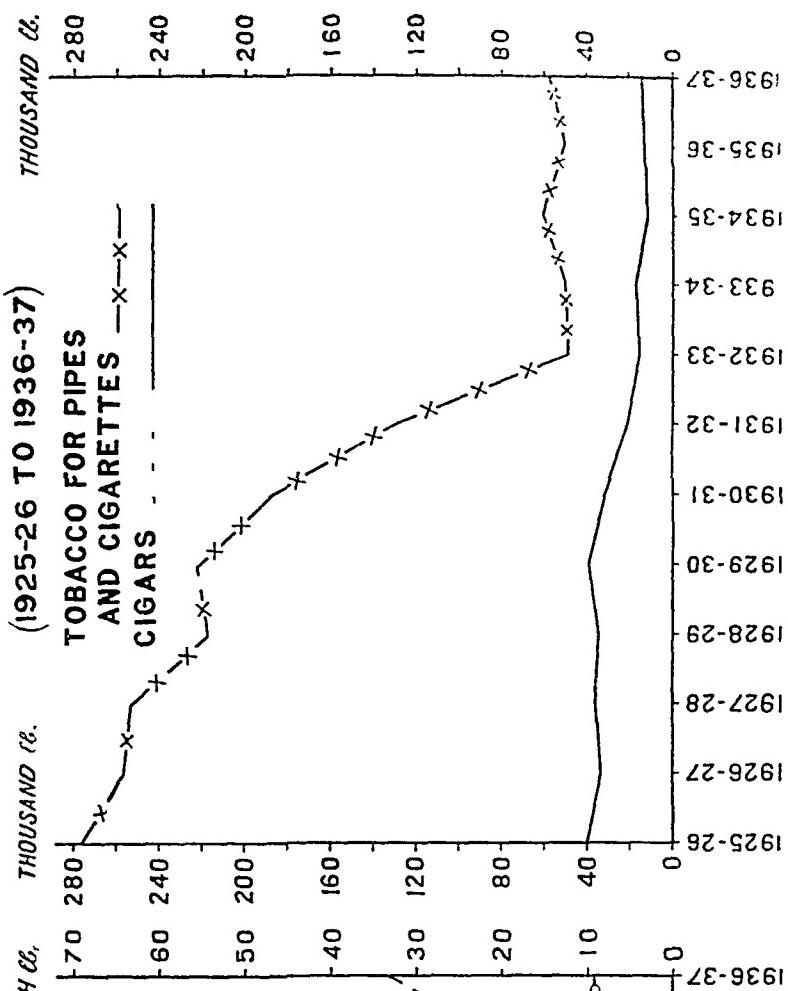
ANNUAL IMPORTS OF UNMANUFACTURED TOBACCO & CIGARETTES INTO BRITISH INDIA & BURMA.

(1925-26 TO 1936-37)



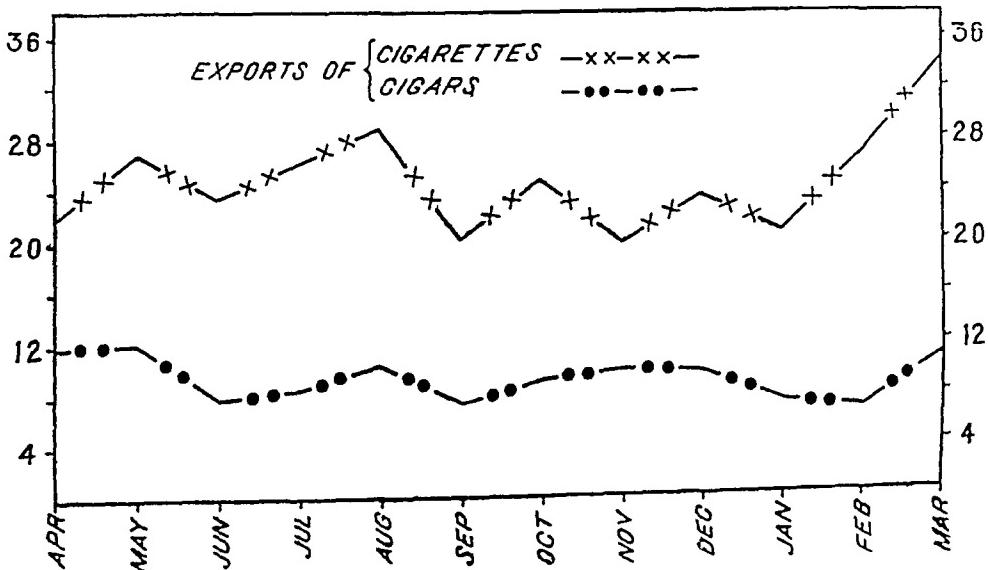
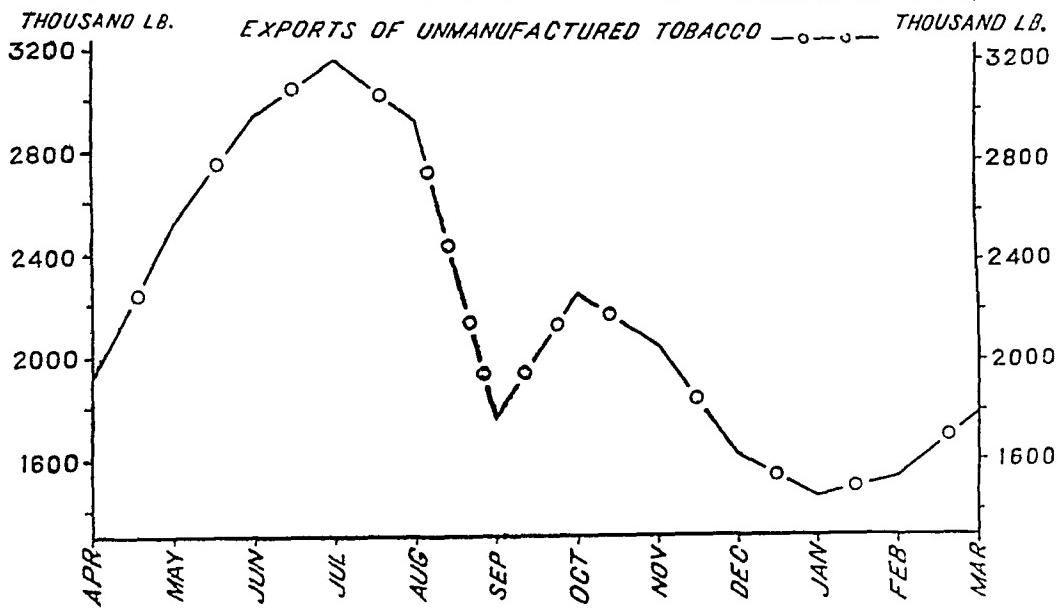
ANNUAL IMPORTS OF CIGARS AND MANUFACTURED TOBACCO FOR PIPES AND CIGARETTES INTO BRITISH INDIA & BURMA.

(1925-26 TO 1936-37)



AVERAGE MONTHLY EXPORTS FROM BRITISH INDIA & BURMA.

(AVERAGE FOR 5 YEARS ENDING 1934-35)



and also due to the movement within the country to boycott foreign goods. The imports in 1932-33 suddenly jumped to 5.1 million lb. from 2.8 million lb. in 1931-32 due entirely to the increase in the manufacture of cigarettes within the country. The number of cigarette factories in 1929 was 9 which increased to 22 in 1935. It may further be mentioned that British manufacturers have been manufacturing for local consumption the popular English brands of cigarettes in their Indian factories for some years past. The fall in 1934-35 and 1935-36 was partly due to the increased production of virginia tobacco in India and to the increase in the import duty from 1934-35. Before this year the import duty on unmanufactured tobacco was Rs. 1-8-0 per lb., but the Indian Finance Act of 1934 increased it to Rs. 3-4-0 per lb. (standard) and Rs. 2-12-0 per lb. (preferential provided the article is the produce of either the United Kingdom or a British Colony). Generally it may be stated that the imports in any particular year are affected by the stocks held and the demand for manufacture.

(c) *Cigarettes.*—(i) *Quantity and value.*—During the 5 years ending 1934-35, imports of cigarettes accounted for 27.2 per cent. in quantity and 51.5 per cent. in value of the total imports of tobacco and tobacco products. The annual average import of cigarettes was 1.3 million lb. valued at 49.1 lakhs of rupees.

All the chief ports in the maritime provinces of India import cigarettes, the largest imports being into Calcutta followed by Bombay, Karachi, Madras and Rangoon in the order of importance.

(ii) *Sources.*—The proportion of the average annual imports received from different countries is shown in the following table :—

Proportion of imports of cigarettes from different countries.

Country.	Quantity.	Value.	
		Per cent.	Per cent.
United Kingdom	88.5	93.7	
Other Empire countries	1.8	1.1	
China (excluding Hongkong and Macao) ..	6.1	2.3	
Japan	1.7	0.7	
U. S. A.	1.4	1.3	
Other foreign countries	0.5	0.9	
Total ..	100.0	100.0	

Thus about 90 per cent. of the cigarettes are received from the United Kingdom (see Appendix XIV). The following were the imports of cigarettes from the United Kingdom.

Imports of cigarettes from the United Kingdom.

Year.	Quantity.	Value.
	(lb.)	(Rs.)
1930-31	2,840,434	1,17,94,574
1931-32	1,189,659	48,54,530
1932-33	720,790	26,30,716
1933-34	474,934	16,61,663
1934-35	556,567	20,63,699
Average	1,156,474	46,01,036
1935-36	780,399	26,63,055
1936-37	876,957	30,15,510
1937-38	1,039,047	35,43,495

It will be seen that imports of cigarettes from the U. K. have steadily declined from 1930-31 except for a small and progressive recovery from 1934-35 onwards.

(iii) *Periodicity and trend.*—On an average, imports are high during April to July, the period accounting for about 41 per cent. of the average annual imports. August to November are months of low imports, the lowest imports usually occurring in the month of September. The period December to March accounts for 35 per cent. of the average annual imports (see Appendix XIII and the diagram facing page 40).

As is evident from the diagram facing page 44, imports of cigarettes have enormously declined during the last twelve years and the present imports are far below even the pre-war level as can be seen from the following figures :—

Imports of cigarettes by sea into India and Burma.

Period.	Quantity.	Value.
	(Million lb.).	(Lakhs of rupees).
Pre-war average	1·73	52·74
War average	2·62	1,12·79
Post-war average	4·13	1,79·68
1925-26 to 1929-30 average	4·68	2,01·49
1930-31	3·06	1,22·48
1931-32	1·44	52·78
1932-33	0·83	28·95
1933-34	0·59	19·06
1934-35	0·61	22·21
Average	1·31	49·10
1935-36	0·83	28·10
1936-37	0·92	31·60
1937-38	1·08	37·22

The increase in imports during post-war period was remarkable due to increasing popularity of cigarette smoking in India in common with many other countries. During the pre-depression period the imports increased still further but from 1930-31 there has been a definite and sudden fall and the imports during the past 7 years have been far below the pre-war level.

This decline has been in no way due to the fall in the popularity of cigarettes. On the contrary the demand for cigarettes is still on the increase. And yet the imports of both the unmanufactured tobacco and cigarettes are falling. In this connection it will be worth considering the imports of cigarettes and unmanufactured tobacco together.

Imports of cigarettes and of unmanufactured tobacco.

(In thousands of lb.)

Period.	Cigarettes.	Unmanufactured tobacco.	Total.
Pre-war average	1,731	736	2,467
War average	2,623	325	2,948
Post-war average	4,129	1,686	5,815
1925-26 to 1929-30 average	4,684	5,182	9,866
1930-31 to 1934-35 average	1,307	3,347	4,654
1935-36	831	1,921	2,752
1936-37	919	3,283	4,202
1937-38	1,084	3,061	4,145

The increasing imports of cigarettes and unmanufactured tobacco till the commencement of depression were due entirely to the rising demand for cigarettes. The fall from 1930-31 onwards is accounted by the fact that since that year larger quantities of Indian tobacco are being used in the manufacture of cigarettes. This has been made possible by the increase in the production of Virginia tobacco and in view of the recent increasing imports of unmanufactured tobacco, it is evident that there is immediate scope for a further rapid increase in the production of cigarette leaf in India.

The sudden fall in the imports in 1930-31 was due to trade depression and boycott of foreign goods, but the subsequent decline was almost entirely due to the increase in the local manufacture of cigarettes. The progressive small increase in the imports of cigarettes from 1934-35 has been due to the revision of import duty on cigarettes. Under the import duties in force up to the end of 1933-34 cigarettes paid a duty of Rs. 8-8-0 per thousand on cigarettes valued at not more than Rs. 10-8-0 per thousand and Rs. 12-0-0 per thousand when the value exceeded Rs. 10-8-0 per

thousand. This high duty was to a large extent responsible for diverting to India the manufacture of many popular brands of cigarettes which were formerly imported from England. The Indian Finance Act of 1934 revised the rate of duty on cigarettes to 25 per cent. *ad valorem in addition* to either Rs 8-2-0 per thousand or Rs. 3-4-0 per lb. whichever is higher. This revision of duty in effect adversely affected the cheaper varieties of cigarettes imported from abroad thus giving an advantage to the cheaper brands of cigarettes made out of Indian grown tobacco, while providing for the more expensive brands of cigarettes manufactured out of imported tobacco, the shelter of the ordinary revenue duty at rates specified above.

(d) *Cigars.*—(i) *Quantity and value.*—Cigars from about 0.4 per cent. in quantity and 1.0 per cent. in value of total imports. The average annual imports are small being 19,533 lb. valued at Rs. 96,607.

(ii) *Sources.*—The following statement shows the relative importance of the different countries which export cigars to India. (See Appendix XV.)

Average proportion of imports of cigars into India and Burma from different countries.

Country.	Quantity per cent.	Value per cent.
United Kingdom	4·3	12·1
Other Empire countries	6·1	3·8
Netherlands	15·9	22·7
Philippines	64·7	51·9
Other foreign countries	9·0	9·5
Total ..	100·0	100·0

Netherlands and Philippines therefore supply about four-fifths of the cigars imported in the country. The following were the imports from these two countries during the six years ending 1935-36.

Imports of cigars from Netherlands and Philippines.

Year.	Netherlands. lb.	Philippines. lb.
1930-31	6,062	21,315
1931-32	3,306	14,071
1932-33	2,301	10,628
1933-34	2,109	9,720
1934-35	1,761	7,485
Average	3,108	12,644
1935-36	2,418	8,704

The imports from both the countries have therefore continuously declined, except for a slight recovery in 1935-36.

The imports of cigars take place mostly through the ports of Calcutta and Bombay, but Rangoon, Madras and Karachi also import small quantities.

(iii) *Periodicity and trend.*—November to January is the period of high imports and these three months account for over 37 per cent. of the average annual imports ; (see Appendix XIII and the diagram facing page 40). August and February are months of low imports.

There has been a continuous decline in the imports of cigars since the pre-war period and the imports in 1936-37 were only about a sixth of the average annual imports during the pre-war period.

Total imports of cigars in India and Burma.

Period.		Quantity.	Value.
		(thousand lb.)	(thousand Rs.)
Pre-war average	.. .. ..	79	3,30
War average	.. .. ..	52	2,40
Post-war average	.. .. ..	45	2,76
1925-26 to 1929-30 average	.. .. ..	37	1,84
1930-31	.. .. ..	33	1,60
1931-32	.. .. ..	21	1,04
1932-33	.. .. ..	15	85
1933-34	.. .. ..	17	74
1934-35	.. .. ..	12	61
Average		20	97
1935-36	.. .. ..	13	70
1936-37	.. .. ..	14	61
1937-38	.. .. ..	22	71

Except for the small increase over the previous years in 1933-34 and from 1935-36 onwards, the trend of imports has been definitely downwards (see diagram facing page 44). The consumption of cigars has considerably declined in most of the principal countries of the world since after the war and India has not been an exception. There is a high revenue duty of $112\frac{1}{2}$ per cent. *ad valorem* on imported cigars.

(e) Manufactured tobacco for pipes and cigarettes.—(i) Quantity and value.—Manufactured tobacco for pipes and cigarettes forms about 1.9 per cent. in quantity and 6.2 per cent. in value of the total average imports of tobacco and tobacco products. The average annual imports are 95,931 lb. valued at Rs. 5,88,221.

(ii) Sources.—

Average proportion of the imports of manufactured pipe and cigarette tobacco from different countries.

Country.	Quantity.		Value.	
	Per cent.	Per cent.	Per cent.	Per cent.
United Kingdom	83.8		87.6	
Australia	8.2		6.3	
Other Empire countries	0.2		0.1	
United States of America	7.7		6.0	
Other foreign countries	0.1		..	

The United Kingdom is thus by far the most important source of this type of manufactured tobacco but imports from this source also have shown an enormous decrease in recent years owing to the transfer of manufacture to India and the decline in pipe smoking. The actual imports from U. K., during the eight years ending 1937-38 were as follows (*see Appendix XVI*).

Imports of manufactured tobacco for pipes and cigarettes from the United Kingdom.

Year.	Quantity.		Value.	
	lb.	Rs.	lb.	Rs.
1930-31	166,672	9,96,073		
1931-32	115,126	7,87,853		
1932-33	35,656	2,37,098		
1933-34	37,565	2,36,345		
1934-35	47,021	3,17,746		
	Average ..	80,408		5,15,023
1935-36	35,478	2,43,825		
1936-37	36,972	1,63,169		
1937-38	37,981	2,50,321		

Except for a small improvement in 1933-34, 1934-35, 1936-37 and 1937-38, the imports have declined and in 1937-38 were not even one-fourth of the imports in 1930-31.

On an average more than half the total imports from all countries are received through the ports of Bengal. Burma receives about one-third the quantity imported by Bengal ports, while imports through Bombay and Karachi are small being about 12,000 lb., at each port.

(iii) *Periodicity and trend.*—Except during September and October, the average monthly imports range from 7,400 lb. to 9,600 lb. per month (see Appendix XIII). In September and October the range of imports is between five to six thousand pounds per month. March and April are months of large imports and together account for about a fifth of the average annual imports.

Figures of imports of manufactured tobacco for pipes and cigarettes are being separately recorded only from 1920-21 and hence comparison of the present imports with pre-war and war averages is not possible. The following figures and the diagram facing page 44 show the trend of imports during the last 12 years.

Total imports of manufactured tobacco for pipes and cigarettes in India and Burma.

Period.		Quantity.	Value.
		(thousand lb.)	(thousand Rs.)
1925-26 to 1929-30 average	..	246	15,06
1930-31	..	190	10,89
1931-32	..	129	8,54
1932-33	..	49	3,06
1933-34	..	50	3,00
1934-35	..	62	3,91
Average		96	5,88
1935-36	..	51	3,20
1936-37	..	58	2,36
1937-38	..	59	3,45

The enormous decline in the imports is apparent, the average annual imports during the five years ending 1934-35 being only about a little more than a third of the average annual imports during the quinquennium ending 1929-30. The demand for this type of tobacco has fallen during the last 12 years due to the influx of cheaper brands of cigarettes and the fall in favour of the use of pipes and "zig-zag" paper used for hand made cigarettes.

(f) *Other sorts of manufactured tobacco.*—The other sorts of manufactured tobacco consist mainly of snuff, chewing tobacco and smoking tobacco, other than the pipe and cigarette tobaccos. The average annual quantity imported is about 42,000 lb. valued at Rs. 1,87,000. About 85 per cent. of the imports are received from the United Kingdom, and 12 per cent. from the United States of America. The imports do not show any definite trend and during the past seven years have ranged from 33,000 lb. to 47,000 lb. per year (see Appendix XI).

(g) *Import duty.*—There is a revenue duty on unmanufactured and manufactured tobacco imported into British India, unmanufactured tobacco coming under Empire preference. The following statement shows the existing rates of import duty current since 1934-35 :—

Rates of import duty on unmanufactured and manufactured tobacco.

	Standard rate of duty.	Preferential rate of duty if the article is the produce or manufacture of—	
		United Kingdom.	British colony.
1. Tobacco Unmanufactured*.	Rs. 3-4-0 per lb.	†	Rs. 2-12-0 per lb.
2. Cigarettes	25% ad valorem and in addition either Rs. 8-2-0 per thousand or Rs. 3-4-0 per lb. whichever is higher.	..	..
3. Cigars	112½% ad valorem ..	..	..
4. Tobacco, manufactured not otherwise specified.	Rs. 3-12-0 per lb. ..	..	..

(2) IMPORTS BY LAND FRONTIER ROUTES.

Fairly large quantities, almost wholly unmanufactured tobacco used for *hookah* and smoking, are imported through land frontier routes adjacent to the N.-W. F. P., Kashmir, U. P., Bihar, Bengal, Assam and Burma (see Appendices XVII and XVIII). The following figures indicate the quantities imported into India and Burma.

* Tobacco leaf for the manufacture of cigars when proved to have been imported for use in a cigar factory is liable to duty at Rs. 2 per lb. (Standard) and Rs. 1-8-0 per lb. (Preferential).

† Since tobacco is not produced in the United Kingdom, the question of preference on unmanufactured tobacco imported from the United Kingdom does not arise.

Imports through land frontier routes.

(In thousands of lb.)

Period.	India.	Burma.
1925-26 to 1929-30 average	10,837	456
1930-31	9,820	259
1931-32	9,238	203
1932-33	11,239	275
1933-34	7,629	332
1934-35	5,793	118
Average ..	8,744	237
1935-36	9,625	95
1936-37	8,214	125

The imports have thus declined by about 20 per cent. in India and 48 per cent. in Burma during the 5 years ending 1934-35 as compared with the quinquennial average ending 1929-30, but later years again show a rising tendency. Regarding the periodicity of these imports it is observed that imports into India commence to rise in March till they reach their maximum in June. The imports during the three months, May to July, constitute about 44 per cent. of the average annual imports. From August there is a continuous decline till February. In Burma June and July are the months of high imports and together contribute about 44 per cent. of the average annual imports. June is the month of maximum imports, accounting for over a fourth of the annual imports, while the months of low imports are October and November.

(3) IMPORTS BY SEA THROUGH KATHIAWAR AND TRAVANCORE PORTS.

Imports through Kathiawar ports are small and consist mainly of cigarettes. The following figures show the average annual imports (average for 5 years ending 1935-36).

	lb.				
Unmanufactured tobacco	11				
Cigarettes	76,109				
Cigars	822				
Tobacco for pipes and cigarettes	95				
Total ..	<u>77,037</u>				

Travancore imports only unmanufactured tobacco and cigarettes, the averages (for two years 1934-35 and 1935-36) of annual quantities imported being as below :—

	lb.
Unmanufactured tobacco	1,508,104
Cigarettes	680
Total	1,508,784

All the unmanufactured tobacco imported into Travancore from abroad comes from Ceylon and is a special type of chewing leaf extremely popular in Travancore and Cochin States. Only the Travancore Government is permitted to import this tobacco from Ceylon subject to a maximum import of 5,745 candies (1 candy = 600 lb.) in one Malayalam official year (August to July) and an import duty of Rs. 135 per candy. Any quantity imported in excess of this figure is liable to duty at the rate of Rs. 900 per candy.

This type of tobacco is called *Jaffna* as it is imported direct by sea from Jaffna in Ceylon. The principal villages in Jaffna from where Travancore gets its supply are Alavatty, Punnalai-kattuvan, Vayavilan, Puttur, Atchuveli and Thirunelveli. The imports are confined almost wholly to six months from October to March, because of unfavourable weather conditions in sea during the remaining period of the year for schooners which transport tobacco from Ceylon to Travancore. The variety closely resembles the Meenampalayam tobacco grown in Coimbatore district of Madras in physical characteristics and it will be worth investigating at least two aspects to replace *Jaffna* : (1) whether the taste of *Meenampalayam* cannot be changed to that of *Jaffna* by transferring the micro-organisms that are present in *Jaffna* to *Meenampalayam* tobacco, and (2) whether *Jaffna* tobacco cannot be grown and cured under conditions prevailing in India.

(4) IMPORTS THROUGH FOREIGN POSSESSIONS.

Imports through the ports of Foreign Possessions (French and Portuguese) in India are small and almost negligible. The average annual imports into the French Possessions from foreign countries are about 14,000 lb. of tobacco and tobacco products. The latest figures available (1933) for the Portuguese Possessions indicate that the imports of tobacco and tobacco products are a little over a million lb. of which over 90 per cent. are imported from Bombay. The official figures of imports into British India and Indian States from these two Foreign Possessions are almost nil.

(5) TOTAL IMPORTS INTO INDIA AND BURMA BY SEA AND LAND.

The average annual total imports of different types of unmanufactured and manufactured tobacco into India and Burma by sea and land. are indicated in the following statement.

Average annual imports into India and Burma by sea and land.
(In thousands.)

Type.	British ports.		Land Frontier routes.		Kathiawar and Travancore State ports.		Total.	
	lb.	Rs.	lb.	Rs.	lb.	Rs.	lb.	Rs.
Unmanufactured Tobacco.	3,347	37,47	8,981	8,73*	1,508	5,15	13,836	51,35
Cigarettes ..	1,307	49,10	..	..	77	53	1,384	49,63
Cigars ..	19	97	..	..	1	2	20	99
Tobacco for pipes and cigarettes.	96	5,88	..	..	..	..	96	5,88
Other sorts of manufactured tobacco.	42	1,87	..	..	..	..	42	1,87
Total ..	4,811	95,29	8,981	8,73	1,586	5,70	15,378	1,09,72

*Values of imports by land frontier routes are not declared and hence these imports are valued at an average price (Rs. 8 per maund) ruling in areas where those imports occur.

C.—Exports.

(1) EXPORTS BY SEA THROUGH BRITISH PORTS.

(a) *Total tobacco.*—Exports of tobacco from India and Burma consist principally of unmanufactured tobacco, cigars and cigarettes (see Appendix XIX).

The total average annual exports of all types of manufactured and unmanufactured tobacco are 26.86 million lb. valued at 88.37 lakhs of rupees. The following figures indicate the trend of these total exports :—

Exports of unmanufactured and manufactured tobacco from India and Burma.

Period.	Quantity.	Value.
	(Million lb.)	(lakhs of rupees).
Pre-war average	22.35	36.91
War average	25.92	56.23
Post-war average	27.37	84.90
1925-26 to 1929-30 average	31.61	111.52
1930-31 to 1934-35 average	26.86	88.37
1935-36	29.60	92.43
1936-37	29.30	92.51
1937-38	26.98	116.29

These average annual export figures indicate that the exports increased from the pre-war period till 1929-30. The average annual exports during the 5 years ending 1929-30 were higher by about 41 per cent. in quantity and over two hundred per cent. in value over the pre-war average exports. During the quinquennium ending 1934-35 the average annual exports declined by 15 per cent. in weight and 21 per cent. in value over the pre-depression period (5 years ending 1929-30) but were higher by 20 per cent. in quantity and about 140 per cent. in value as compared with the pre-war average. The exports in 1937-38 were the highest during the past 12 years.

The relative proportion of the average exports of different types of tobacco and tobacco products is as follows :—

Proportion of exports of different types of tobacco and tobacco products.

Type.	For 5 years ending 1929-30.		For 5 years ending 1934-35.	
	Quantity.	Value.	Quantity.	Value.
			%	%
Unmanufactured tobacco	96.8	93.8
Cigars	1.0	2.8
Cigarettes	0.8	2.2
Other sorts of manufactured tobacco	1.4	1.2
Total	..	100.0	100.0	100.0

The proportions have changed but slightly during the two quinquenniums in the case of unmanufactured tobacco. The proportion of cigars dropped down to 0.4 from 1 in weight while that of cigarettes increased from 0.8 to 1.1 per cent. Unmanufactured tobacco is by far the most important in the export trade.

(b) *Unmanufactured tobacco.*—

(i) *Quantity and value.*—The annual average exports of unmanufactured tobacco are 25.97 million lb. valued at 83.69 lakhs of rupees.

Of the average annual exports, the ports from Madras Presidency export about 61 per cent. of the total, Bombay exports about 20 per cent., while the share of the ports in Bengal and Burma comes to about 11 per cent. and 8 per cent. respectively (see Appendix XX).

(ii) Destinations.—The proportion of the average annual exports to different countries is as follows :—

Average proportion of exports of unmanufactured tobacco to different countries.

Country.	Quantity. %	Value. %
United Kingdom	40·3	46·4
Aden and Dependencies	19·7	23·5
Straits Settlements	5·6	6·2
Federated Malaya States	2·7	3·0
Hongkong	4·5	1·2
Other Empire countries	1·1	1·1
Japan	15·4	13·3
Netherlands	7·6	3·3
Belgium	1·2	0·6
Other foreign countries	1·9	1·4
Total	100·0	100·0

The Empire countries take 73.9 per cent. in weight and 81.4 per cent. in value of the average annual exports. Over two-fifths of the quantitative exports go to the United Kingdom, while Aden and Dependencies absorb another one-fifth. Among the foreign countries Japan and Netherlands are important buyers and together account for 23 per cent. of the average annual weight of unmanufactured tobacco exported (see Appendix XXI and diagram facing page 41).

The following were the exports to the United Kingdom, Aden and Dependencies, Japan and Netherlands during the past eight years :—

Exports of unmanufactured tobacco to certain countries.
(In thousands of lb.)

Year.	United Kingdom	Aden and Dependencies.	Japan.	Netherlands.
1930-31	9,956	5,364	3,841	2,341
1931-32	10,626	4,427	3,700	945
1932-33	9,046	4,394	3,145	1,667
1933-34	13,299	5,398	3,313	3,512
1934-35	9,260	6,040	5,899	1,420
Average	10,437	5,125	3,980	1,977
1935-36	11,702	7,315	5,624	1,231
1936-37	13,298	8,336	3,000	1,121
1937-38	21,231	7,182	2,317	1,348

These four countries take 83 per cent. of the average annual exports.

Indian tobacco is assuming increasing importance in the English market and at present over one-fourth of the unmanufactured tobacco imported into Britain from Empire countries is Indian. During the past four years Indian virginia flue-cured tobacco has been keenly demanded in the English market as will be evident from the following figures of exports to the United Kingdom :—

						Million lb.
1934-35	..	..	..	..	..	9.3
1935-36	..	..	..	..	..	11.7
1936-37	..	..	..	..	..	13.3
1937-38	..	..	..	..	..	21.2
1938-39 (for seven months April to October 1938)	..	..	..	..	..	29.9

Further possibilities of expansion of trade with the United Kingdom and other countries will be referred to in more detail under the chapter on Demand, but it is evident from the figures given above and in the foregoing table that the greatest possibilities lie in the expansion of exports to the United Kingdom.

Exports to Aden and Dependencies are also increasing from 1933-34. In 1936-37 the exports were 8.3 million lb. as against 5.4 million lb. in 1933-34, a rise of 2.9 million lb. In 1937-38, however, the exports recorded a fall. Exports to Netherlands appear to be irregular, but the general trend is definitely downwards. Japan has been taking larger quantities since 1933-34, but the sudden fall from 1936-37 appears to be very largely due to disturbed conditions of trade in Japan on account of the war trouble in the far eastern countries.

(iii) *Periodicity and trend.*—On an average exports are high during May to August, the four months accounting for about 45 per cent. of the annual average exports of unmanufactured tobacco. In September the exports decline, but again rise in October and November, the two months accounting for 16.5 per cent. of the annual exports. December to February are months of low exports which commence to rise in March and reach their maximum in July (see Appendix XIII and the diagram facing page 45). Largest exports to the United Kingdom occur during May and June and the lowest in February and March. April to June are months of exports of flue-cured cigarette leaf from Madras Presidency to the United Kingdom, while the season of exports to Japan which generally commences late in September, is at its height in October and November and ends by about February. Exports from Bombay to Aden and Dependencies are high during May to August.

Both in quality and value, the present exports of unmanufactured tobacco are considerably above the pre-war and war period average exports and it is further important to note that the exports even during the depression period are slightly higher as compared with the average exports during the post-war years.

Exports of unmanufactured tobacco from India and Burma.

Period.	Quantity.	Value.
	(Million lb.)	(Lakhs of rupees.)
Pre-war average	20.43	23.27
War average	24.05	41.56
Post-war average	25.93	73.47
1925-26 to 1929-30 average	30.61	104.57
1930-31	27.97	96.73
1931-32	25.43	80.62
1932-33	20.99	73.41
1933-34	29.21	90.13
1934-35	26.35	77.55
Average ..	25.97	83.69
1935-36	28.74	87.96
1936-37	28.53	87.76
1937-38	35.94	109.37

It is apparent that the exports in 1937-38 were higher than those during the pre-depression period. The trend from 1935-36 is definitely upwards. During the seven months, April to October 1938, the exports to foreign countries (excluding Burma) from India, excluding Burma, were 36.57 million lb. valued at 144.60 lakhs of rupees as against 20.67 million lb. and 64.34 lakhs of rupees and 27.39 million lb. and 80.80 lakhs of rupees during the corresponding period in 1936 and 1937 respectively. In this connection it will be worth considering the exports of the four maritime Indian provinces and Burma to understand the relative changes that have occurred during the past 12 years (see Appendix XX).

Exports of unmanufactured tobacco from the ports of different Indian provinces and Burma.

(Million lb.)

Exported from the ports of	1925-26 to 1929-30 average.	1930-31 to 1934-35 average.	1935-36.	1936-37.	1937-38.
Bengal	4.33	2.86	0.33	0.25	1.72
Madras	13.35	15.79	20.03	19.41	25.91
Bombay	5.85	5.20	7.38	8.32	7.19
Sind	0.05	0.02	0.01	0.03	0.02
Burma	7.03	2.10	0.99	0.52	1.10
Total ..	30.61	25.97	28.74	28.53	35.94

It is evident that exports from Madras are steadily rising while those from Bombay also indicate an increase except for the fall in 1937-38. Exports from Sind are insignificant, but those from Bengal and Burma have declined enormously during the past 13 years, though 1937-38 recorded a rise. The following figures show the rise or fall of exports to different countries :—

Exports of unmanufactured tobacco from India and Burma to different countries.

(Million lb.)

Country.		1925-26 to 1929-30 Average.	1930-31 to 1934-35 Average.
United Kingdom	.. .. .. ..	9.58	10.44
Aden and Dependencies	.. .. .. ..	5.77	5.13
Straits Settlements	.. .. .. ..	4.12	1.45
Federated Malaya States	.. .. .. ..	2.52	0.71
Hongkong	.. .. .. ..	2.72	1.18
Netherlands	.. .. .. ..	2.01	1.98
Belgium	.. .. .. ..	0.47	0.32
Japan	.. .. .. ..	2.32	3.98
Germany	.. .. .. ..	1.30	0.02

The rise in the exports to the United Kingdom and Japan is apparent. Almost all this rise was shared by Madras. The slight fall in the exports to Aden and Dependencies was all shared by Bombay but made up by the considerable rise in 1935-36 and 1936-37. The fall in the exports to Straits Settlements, Hongkong, Federated Malaya States, Netherlands, Belgium and Germany was almost wholly shared by Bengal and Burma. In 1925-26 Bengal exported over 7.5 million lb. mainly to Netherlands, Germany and Japan. But during the very next year her exports dwindled to 2.5 million lb. while in 1935-36 and 1936-37 the exports from Bengal were only about 328,000 lb. and 248,000 lb. respectively. Her exports to Germany have stopped while those to Netherlands have enormously declined. Japan now buys wholly from Madras. The annual average exports from Burma during the 5 years ending 1929-30 were 7 million lb. which declined to 2.1 million lb. during the quinquennium ending 1934-35, while her exports during 1935-36 and 1936-37 were only 993,000 lb. and 523,000 lb. respectively losing mostly in trade with Straits Settlements, Federated Malay States and Hongkong.

(c) *Cigars.*—

(i) *Quantity and value.*—Cigars account for about 0.4 per cent. in quantity and 1.5 per cent. in value of total exports of unmanufactured and manufactured tobacco. The average annual exports of

cigars during the 5 years ending 1934-35 were 112,403 lb. valued at about 1.29 lakhs of rupees

Almost 62 per cent. of the annual average exports of cigars occur through Rangoon (see Appendix XXII). The ports in the Madras Presidency export one-third of the total, while the exports through the ports of Bombay and Bengal are small being about 2.6 per cent. and 1.7 per cent. of the total respectively.

(ii) *Destinations.*—The following statement gives the relative importance of the different countries that take Indian cigars (see Appendix XXIII).

Average proportion of exports of cigars from India and Burma to different countries.

Country.	Quantity.			Value.
		%	%	
United Kingdom	..	30.3	35.4	
Aden and Dependencies	..	3.9	4.7	
Ceylon	..	11.1	10.9	
Straits Settlements	..	39.2	31.8	
Other Empire countries	..	2.2	2.9	
Iraq	..	2.1	3.1	
Siam	..	4.6	3.8	
Other foreign countries	..	6.6	7.4	
Total	..	100.0	100.0	

The United Kingdom, Straits Settlements and Ceylon are therefore important buyers and together account for 80.6 per cent. in quantity and 78.1 per cent. in value of the total average exports. The following were the exports to these three countries during the past six years :—

Exports of cigars to important countries.

(Thousand lb.)

Year.	United Kingdom.	Straits Settlements.	Ceylon.
1930-31	45	116	12
1931-32	24	59	12
1932-33	29	28	18
1933-34	34	6	12
1934-35	37	12	8
Average	34	44	12
1935-36	43	9	10
1936-37	29	5	10
1937-38	33	4	11

It will be noticed that while exports to the United Kingdom are slowly rising from 1933-34, those to the Straits Settlements have enormously declined. Exports to Ceylon show no definite trend, but if anything, they are downwards in recent years. During the pre-depression period (5 years ending 1929-30), the United Kingdom imported 45,000 lb. of Indian cigars on an average, so that the fall during the five years ending 1934-35 was a little over 24 per cent. The average annual exports to the Straits Settlements during the pre-depression period were as high as 166,000 lb. as against only 44,000 lb. during the five years ending 1934-35, a fall of over 73 per cent. In 1935-36 Straits Settlements imported only about 9,000 lb. of cigars. Another fair importer of Indian cigars during the pre-depression period was Siam. The annual average exports to Siam during the five years ending 1929-30 were 32,000 lb. which declined to only 12 lb. in 1934-35. It is, therefore, evident that the exports of cigars to Straits Settlements and Siam, two important buyers till the year 1930-31, have not only declined at an enormous speed, but are on the verge of disappearance.

(iii) *Periodicity and trend.*—March to May are the months of high exports and together account for about 32 per cent. of the average annual exports. January and February are the months of low exports.

The exports of cigars have enormously declined during the past 30 years and the present exports are about 4 or 5 per cent. of the average annual exports during the pre-war period as can be seen from the following figures :—

Exports of cigars from India and Burma.

Period.	Quantity.	Value.	
			(thousand lb.) (thousand Rs.)
Pre-war average	1,535	13,01	
War average	1,260	11,23	
Post-war average	480	6,09	
1925-26 to 1929-30 Average	303	3,17	
1930-31	220	2,46	
1931-32	118	1,33	
1932-33	90	95	
1933-34	64	85	
1934-35	70	86	
Average	112	1,29	
1935-36	73	1,01	
1936-37	60	80	
1937-38	62	96	

The decline has been enormous and almost continuous. As already noted earlier, the consumption of cigars has considerably declined all over the world and the fall in the exports of Indian cigars has been almost entirely due to this decline in demand. In this decline of trade, Burma has suffered most. The annual average exports of Burma cigars during the pre-depression period were 225,000 lb. which declined to 69,000 lb. during the 5 years ending 1934-35. In 1935-36 she exported only 52,000 lb. (see Appendix XXII). Burma lost in trade mostly with Straits Settlements and Siam and at present her principal buyer is the United Kingdom which imported 39,000 lb. of Burma cigars in 1935-36. Exports from Madras averaged 69,000 lb. per year during the 5 years ending 1929-30, but during the next 5 years the average exports came down to 37,000 lb. In 1935-36 exports from Madras were only 19,000 lb. Exports from Madras consist of superior cigars prepared from the wrapper leaf imported from Netherlands and also country cheroots exported mainly to Ceylon, the United Kingdom and Aden and cheroots generally go to Straits Settlements and other countries.

(d) *Cigarettes.—*

(i) *Quantity and value.*—Cigarettes form a small proportion of the total tobacco exports from India. The average annual exports are 296,000 lb. valued at 2,52 lakhs of rupees (see Appendix XXIV). Almost 98 per cent. of the annual average exports of cigarettes are despatched from the ports of the Madras Presidency. Burma exports no cigarettes.

(ii) *Destinations.*—Ceylon is the largest customer buying about half the average exports. The other important buyers are the Straits Settlements and Federated Malay States.

Proportion of the average annual exports of cigarettes from India to different countries.

Country.	Quantity.	Value.	
		Per cent.	Per cent.
Ceylon		49·1	52·0
Straits Settlements		21·2	18·0
Federated Malaya States		26·9	27·0
Other Countries		2·8	3·0
	Total ..	100·0	100·0

The exports to the first three countries during the past 8 years were as follows :—

Exports of cigarettes from India to important countries.
(Thousand lb.).

Year.	Ceylon.	Straits Settlements.	Federated Malaya States.
1930-31 186	82	64	
1931-32 121	93	87	
1932-33 75	77	102	
1933-34 141	44	68	
1934-35 204	19	78	
Average ..	145	63	80
1935-36 228	15	83	
1936-37 292	8	67	
1937-38 320	5	47	

It is obvious that exports to Ceylon are increasing from 1933-34, but those to Straits Settlements have enormously declined during the past 6 years.

(iii) *Periodicity and trend.*—There is not much marked variation in the monthly exports of cigarettes, the average monthly exports ranging from 20,000 to 28,000 lb. March seems to be the only month of high exports (see diagram facing page 45) when on an average about 34,000 lb. are exported.

The exports of cigarettes show an upward trend as can be seen from the following statement :—

Total exports of cigarettes from India.*

Period.	Quantity.	Value.
	(Thousand lb.).	(Thousand Rs.)
Pre-war average 31	15	
War average 177	2,15	
Post-war average 90	1,54	
1925-26 to 1929-30 average 249	2,50	
1930-31 342	3,16	
1931-32 313	2,66	
1932-33 264	2,12	
1933-34 258	2,13	
1934-35 305	2,51	
Average ..	296	2,52
1935-36 329	2,85	
1936-37 372	3,40	
1937-38 419	4,98	

*Excluding exports of cigarettes from India to Burma, which amounted to 2.1 million lb. valued at 65 lakhs of rupees in 1937-38.

It is evident that the exports of cigarettes are increasing due mainly to increase in the production of cigarettes in India. The exports in 1937-38 were the highest recorded so far.

(e) *Other sorts of manufactured tobacco.*—The other sorts of manufactured tobacco exported consist mainly of *bidis*, prepared *hookah* and chewing tobaccos and snuff. The average annual quantity exported is 485,000 lb. valued at Rs. 89,000. On an average about 96 per cent. of the exports occur through the ports of Bengal. Ceylon and Maldives are the important buyers among the Empire countries and together take about 72 per cent. of the average annual exports. Muskat Territory, Trucial Oman and other Native States in Arabia are the chief foreign purchasers and together account for 14 per cent. of the average annual exports.

(2) EXPORTS BY LAND FRONTIER ROUTES.

Large quantities, almost wholly unmanufactured tobacco used for *hookah* and smoking, are exported through land frontier routes adjacent to N.W. F. P., Kashmir, U. P., Bihar, Bengal, Assam and Burma (see Appendices XVII and XVIII).

The following statement shows the exports from India and Burma :—

Exports through land frontier routes.

(Thousand lb.).

Period.	India.	Burma.
1925-26 to 1929-30 Average	10,338	372
1930-31	10,330	258
1931-32	11,010	186
1932-33	9,232	79
1933-34	8,772	121
1934-35	9,103	176
Average	9,689	164
1935-36	9,702	308
1936-37	9,229	430

The exports thus declined by about 6 per cent. in India and 56 per cent. in Burma, during the five years ending 1934-35, as compared with the quinquennial average exports ending 1925-26. April to July are months of high exports from India and the period

accounting for 44 per cent. of the average annual exports. Minimum exports occur in February. From March they commence to rise and reach the maximum usually in the month of July.

In Burma there is not much periodical variation in exports, the average monthly outgo ranging from a hundred to two hundred maunds.

(3) EXPORTS BY SEA THROUGH KATHIAWAR AND TRAVANCORE PORTS.

There are no exports of tobacco or tobacco products from Travancore ports. The average annual exports from Kathiawar ports are extremely small being as below :—

	lb.
Manufactured tobacco ..	1,123
Cigars	533
Other sorts of manufactured tobacco ..	3,530
Total ..	<u>5,186</u>

(4) EXPORTS THROUGH FOREIGN POSSESSIONS.

Exports through the ports of French and Portuguese Possessions in India are small and negligible. The average annual exports from the French Possessions are about 2,000 lb. while those from the Portuguese Possessions also come to about the same figure. Almost the whole of this is foreign tobacco re-exported.

(5) TOTAL EXPORTS FROM INDIA AND BURMA BY SEA AND LAND.

The average annual total exports of different types of unmanufactured and manufactured tobacco from India and Burma, by sea and land are shown in the following statement :—

*Average annual exports from India and Burma by sea and land.
(In thousands)*

Type.	British ports.		Land Frontier Routes.		Kathiawar and Travancore States Ports.		Total.	
	lb.	Rs.	lb.	Rs.	lb.	Rs.	lb.	Rs.
Unmanufactured tobacco ..	25,969	83,69	9,853	9,58*	1	†	35,823	93,27
Cigars	112	1,29	..	..	1	1	113	1,30
Cigarettes ..	296	2,51	..	..	..	..	296	2,51
Other sorts of manufactured tobacco ..	485	89	..	..	4	1	489	90
Total ..	26,862	88,38	9,853	9,58	6	2	36,721	97,98

*Values of exports by land frontier routes are not declared and these exports are valued at an average price (Rs. 8 per maund) ruling in areas from where these exports occur.

†Value less than Rs. 200.

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D.—Re-exports.

Re-export trade is exceedingly small and consists principally of unmanufactured tobacco, cigarettes, pipe and cut tobaccos. Unmanufactured tobacco is exported mostly to foreign countries while cigarettes, pipe and cut tobaccos are exported principally to Empire countries, as can be seen from the statement in Appendix XXV.

Re-exports of unmanufactured tobacco from India and Burma.

	Year.					Quantity.	Value.
	lb.	Rs.					
1930-31	2,069	3,541
1931-32	2,489	2,061
1932-33	17,645	3,183
1933-34	18,612	31,659
1934-35	4,815	3,574
Average					..	9,126	8,804
1935-36	51,196	34,581
1936-37	4,730	3,073
1937-38	47,501	31,939

Re-exports of manufactured tobacco from India and Burma.

	Year.					Quantity.	Value.
	lbs.	Rs.					
1930-31	14,331	55,606
1931-32	19,559	61,347
1932-33	8,812	30,075
1933-34	7,416	25,325
1934-35	40,153	127,303
Average					..	18,054	59,932
1935-36	10,736	48,438
1936-37	9,752	35,829
1937-38	8,711	25,055

The re-export trade in unmanufactured and manufactured tobacco thus forms but a very small part of the total export and import trade in tobacco and tobacco products. Unmanufactured tobacco is re-exported principally to Aden and Dependencies among the Empire countries and small quantities to the United States of America among the foreign countries. Manufactured tobacco is exported chiefly to the United Kingdom, Aden and Dependencies, Ceylon, Straits Settlements and Bahrein Islands among the Empire countries and Muskat Territory and Trucial Oman and China and Japan among the foreign countries.

E.—Total and net available supplies.

Appendices XXVI and XXVII show the total supplies of tobacco and tobacco products available for consumption in India and Burma during the past 6 years taking into account the local production imports, exports and re-exports. The position in respect of the last two years is summarised in the following table :—

	1935-36. (Thousand lb.).		1936-37. (Thousand lb.).	
	India.	Burma.	India.	Burma.
Gross production in the preceding year	1,429,228	100,980	1,346,240	103, 040
Total Supplies.—				
Net production available for consumption allowing 20 per cent. loss on driage and waste in manufacture	1,143,382	80,784	1,076,992	82,432
Imports by sea	6,175	13,802	9,227	15,562
Imports by land	9,626	95	8,215	125
Deduct—	1,159,183	94,681	1,094,434	98,119
Exports and re-exports by sea	42,203	2,917	44,224	4,170
Exports and re-exports by land	9,703	308	9,230	430
	51,906	3,225	53,454	4,600
Balance available	1,107,277	91,456	1,040,980	93,519

On the basis of estimated population in 1935-36 and 1936-37 the *per capita* net available supply in India and Burma during these two years was 3.1 and 2.9 lb. in India and 6.6 lb. and 6.7 lb. in Burma respectively.

[*Supply.*

INTER-CHAPTER ONE.

On the average growers sell 92½ per cent. of their tobacco crop. The annual value of the crop in India is somewhere about 18 crores of rupees, and constitutes, therefore, an important source of ready cash to the cultivators. At present tobacco occupies only 4 out of every 1,000 acres of the sown area but this acreage is steadily expanding at the rate of about 2 per cent. per annum. About one million acres are grown in the Provinces, 300,000 in the Indian States and 100,000 acres in Burma.

More than half the Indian production is concentrated in 5 clearly defined zones. The *North Bengal* (including Cooch Behar State) and *North Bihar* areas are both important for the production of *hookah* and other types of tobacco. The *Charotar* area in Gujerat along with that of *Nipani* in the south of Bombay Presidency have a special reputation for their *bidi* tobaccos, whereas the remaining area, that of *Guntur* in Madras Presidency, is outstanding for the production of high class cigarette leaf.

Many different types of growing plants and of manufactured products are included under the term "tobacco" and it is not always easy to understand in what sense the word is used. Cultivators, for example, who grow the tobacco do not always know to what use it will be put and would not recognise it in its final form. Similarly, the man who smokes, chews, or snuffs tobacco would be quite unable to recognise the product growing in the fields. It is unfortunate also that many members of the agricultural departments apparently do not know the fundamental characteristics and uses of the different types of tobacco as grown in their districts.

There are two main botanical types, *viz.*, *Nicotiana Rustica* and *Nicotiana Tabacum*. The former has a yellow flower and a coarse textured leaf, broad and rounded at the apex and is generally a more robust and densely growing plant than *N. Tabacum*, which has a white or pink flower and an elongated, comparatively smooth and generally pointed leaf.

The two species should be clearly distinguished. The cured leaf of *N. Rustica* is dark or greenish brown, the nicotine content may be as high as 8 per cent. and its chief use is in the preparation of *hookah*, chewing and snuff tobaccos. The cured leaf of *N. Tabacum* ranges from lemon-yellow to reddish brown, the nicotine content may be as low as $\frac{1}{2}$ per cent., and it provides the entire supply of cigarette, cigar, cheroot and *bidi* tobaccos as well as to a great extent being put to the same uses as *N. Rustica*.

N. Rustica represents in India one-third of the total production and is confined to the region north of a line joining Calcutta and Karachi. In this region about one-third of the *N. Tabacum* crop is also produced, the rest growing in peninsular India south of a line Ahmedabad-Calcutta. *N. Tabacum* provides nearly the whole of the export trade in *bidi* and other smoking tobaccos, a small proportion only consisting of *N. Rustica*. Although *N. Rustica* is grown to some extent in Europe and China it does not figure in their export trade. It is very important to observe the fact that the world's international trade as a whole consists of *N. Tabacum* and not of *N. Rustica*.

Official production estimates make no distinction between the two main species and are also misleading in regard to yield. The average annual yield per acre of raw tobacco in India is officially estimated at 1179 lb. in the five years ending 1931-32, as against 1565 lb. per acre in the previous five years. These figures might be

taken to indicate that yields are falling off whereas the real explanation probably is that provinces and States are trying to correct, gradually, the errors in the original basis of the estimates. In Bombay Presidency, for example, the standard yield is based on a formula devised in 1884, and the estimated yield per acre at that time probably referred to the crop as cut green. It would appear from enquiries made in the course of the marketing survey that the official estimates for the Presidency are more than three times the actual figures. In Mysore on the other hand the actual production is more than double that indicated by the official estimates. In the Guntur district of Madras about two-thirds of the area is now under Virginia types of tobacco which yield on an average about 750 lb. of raw leaf or about 400—500 lb. of processed leaf per acre, but the official standard yield for the district is still maintained at 1,000 lb. per acre.

The statistical position is somewhat complicated in so far as in certain parts, e.g., the United Provinces, the practice is to harvest stalks and stems along with the leaf. The average yield per acre, therefore, in this province is well over 2,000 lb., of which one-third consists of stalks and stems.

Taking the country as a whole it seems that the average yield of raw cured tobacco per acre for the six years ending 1935-36 was somewhere about 959 lb. which included 18 per cent. (173 lb.) of stalks and stems. The average yield of cured leaf alone is therefore about 786 lb. per acre.

International trade in tobacco now largely consists of leaf of different types of the *N. Tabacum* species. For Indian statistics to be intelligible both in India and abroad, it is therefore essential to classify the tobacco area and production by species and types with a view to developing the internal as well as the external trade.

As the method of curing determines to a large extent the quality and final use of the tobacco leaf, it is desirable to have complete information with regard to the quantities of the various types produced by the different methods of curing.

The largest amount of the international trade consists of flue-cured tobacco for which the demand is steadily increasing. The total production of this type in India, however, at present represents only 2 per cent. of the total. More than two-thirds of all the tobacco is ground-cured, *i.e.*, it is cut and allowed to lie in the field to be cured by the sun. Another quarter of the production is rack-cured and about 5 per cent. pit-cured. As a first step towards improving official statistics production should be estimated in respect of the two distinct species, *N. Rustica* and *N. Tabacum* and the latter should be sub-divided into (*a*) Virginia and (*b*) *Desi* (or *Natu*), each of which should in turn be sub-divided into (1) flue-cured and (2) sun-cured. This would go a long way towards clearing up the present obscurity.

India produces about one-fourth of the tobacco in the world and yet continues to import considerable quantities—particularly of unmanufactured tobacco from the United States—and the quantity has been increasing. There is, however, a certain amount of satisfaction to be found in the fact that imports of cigarettes have shown a more than corresponding decrease. Imports of cigars have also fallen off considerably but unfortunately the exports of cigars from India and particularly from Burma have shown an enormous drop and now represent only about 0.4 per cent. of the total quantity of manufactured and unmanufactured tobacco exported. It is gratifying to observe that exports of unmanufactured tobacco in recent years have risen, particularly to the United Kingdom and Japan. The increase in the exports of Virginia flue-cured tobacco

to the United Kingdom during the past four years is particularly striking. In 1934-35 these exports amounted to 9.3 million pounds and the figure was more than doubled in 1937-38. This is an indication of the growing popularity of the good quality flue-cured Virginia tobacco produced in India.

CHAPTER II.—UTILISATION AND DEMAND.

A.—Quantitative demand.

(1) UNMANUFACTURED TOBACCO.

Tobacco is mostly consumed in the country in the form of manufactured tobacco products, namely, cigarettes, cigars, cheroots, *bidis*, *hookah* and chewing tobacco and snuff. The quantity consumed in unmanufactured form is extremely small, being confined entirely to *hookah* and chewing tobaccos. Unmanufactured tobacco is therefore almost entirely demanded by manufacturers whose sources of supply are the local production and the imports. Taking into consideration, therefore, the production within the country, imports and exports, the net available supplies of unmanufactured tobacco in India are indicated in the following statement.

Annual net available supplies of unmanufactured tobacco in India.

(Million lb.)

—	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	Average.
Gross production in preceding year.	1,272	1,306	1,154	1,429	1,346	1,301
Deduct 20% on account of driage, damage and wastage in manufacture.	254	261	231	286	269	260
	1,018	1,045	923	1,143	1,077	1,041
Add imports by sea* ..	13	13	8	6	9	10
Add imports by land ..	11	8	6	10	8	9
Deduct exports by sea*	36	42	39	42	44	41
Deduct exports by land	9	9	9	10	9	9
Net supplies available for manufacture and consumption.	997	1,015	889	1,107	1,041	1,010

The annual average demand for unmanufactured tobacco in India may therefore be taken at 1,010 million lb. after allowing 20

*Include coastal imports and exports.

per cent. on account of loss of moisture, damage and waste in manufacture.

Similar figures for *Burma* given below show that the approximate average annual demand for unmanufactured tobacco from the Burmese manufacturers comes to about 86 million lb.

Annual net available supplies of unmanufactured tobacco in Burma.

(Million lb.).

—	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	Average.
Gross production in preceding year.	87	87	101	101	103	96
<i>Deduct</i> 20% on account of drage, damage and wastage in manufacture.	17	17	20	20	21	19
	70	70	81	81	82	77
<i>Add</i> imports by sea*	15	13	13	14	16	14
<i>Add</i> imports by land†	..	..	..	..	..	..
<i>Deduct</i> exports by sea*	5	8	4	3	4	5
<i>Deduct</i> exports by land†	..	..	..	..	..	..
Net available supplies for manufacture and consumption.	80	75	90	92	94	86

(2) TOBACCO PRODUCTS.

(a) *All tobacco products.*—Estimates of consumption of the different tobacco products in the various Indian provinces and

*Include coastal imports and exports.

†About 0.2 million lb. on an average.

States and Burma as based on enquiries made in 1934-35 are given in Appendix XXVIII and illustrated in the diagram facing this page. The figures given in the appendix show that the total consumptive demand for all manufactured tobacco products comes to 1,016.3 million lb. or 2.915 lb. per capita in India and 86.9 million lb. or 6.38 lb. per capita in Burma.

It may be stated that as given in Appendix XXVI the net available supply in India of all tobaccos (manufactured and unmanufactured) in 1934-35 was 889.1 million lb. as against 1,016.3 million lb. as arrived at in Appendix XXVIII. The difference may be accounted for by the portion appropriated from the previous year's carry-overs, necessitated by the low production in 1933-34. The difference in the figures for Burma as given in Appendices XXVII and XXVIII may also be accounted by the year to year variation in the size of the crop. For similar reasons differences are observed between the figures of consumption for India and Burma as given in Appendix XXVIII and those dealt with in the previous section on the quantitative demand for unmanufactured tobacco. Thus while the consumption of manufactured tobacco in India in 1934-35 was 1,016.3 million lb., the quantity of unmanufactured tobacco available for manufacture in the same year was only 889 million lb., the difference being accounted for by the carry-overs from the previous years due to the smaller size of the crop in the country in 1933-34.

It may be interesting to compare the per capita consumption figures for *India* (2.91 lb.) and *Burma* (6.38 lb.) with those of the some of the important tobacco consuming countries of the world, like the Netherlands (7.8 lb.), U. S. A. (6 lb.), U. K. (3.32 lb.). Germany (3.24 lb.) and France (2.9 lb.). The figures available and given for these foreign countries are for 1932, but they show that the per capita consumption in *India* is not large and that the figure for *Burma* compares favourably with that of some of the biggest tobacco producing countries of the world. Tobacco smoking in *Burma* is more general than in several other countries of the world, and it is estimated that at least four-fifths of the Burmese population, men, women and even children, use tobacco in one form or another.

(b) *Cigarettes*.—Cigarette smoking is becoming more and more the fashion of the day and as such the trend of consumption of cigarettes is on the rise. A major portion of the demand in *India* is met by cigarettes manufactured within the country and the imports are fast dwindling.

In *Burma* almost the whole of the demand for cigarettes is satisfied by imports, mostly from *India*.

The following statement shows the quantity of cigarettes consumed in the different Indian provinces and States and *Burma* in 1934-35.

*ESTIMATED PER CAPITA CONSUMPTION
OF TOBACCO PRODUCTS IN INDIAN
PROVINCES, STATES AND BURMA.*

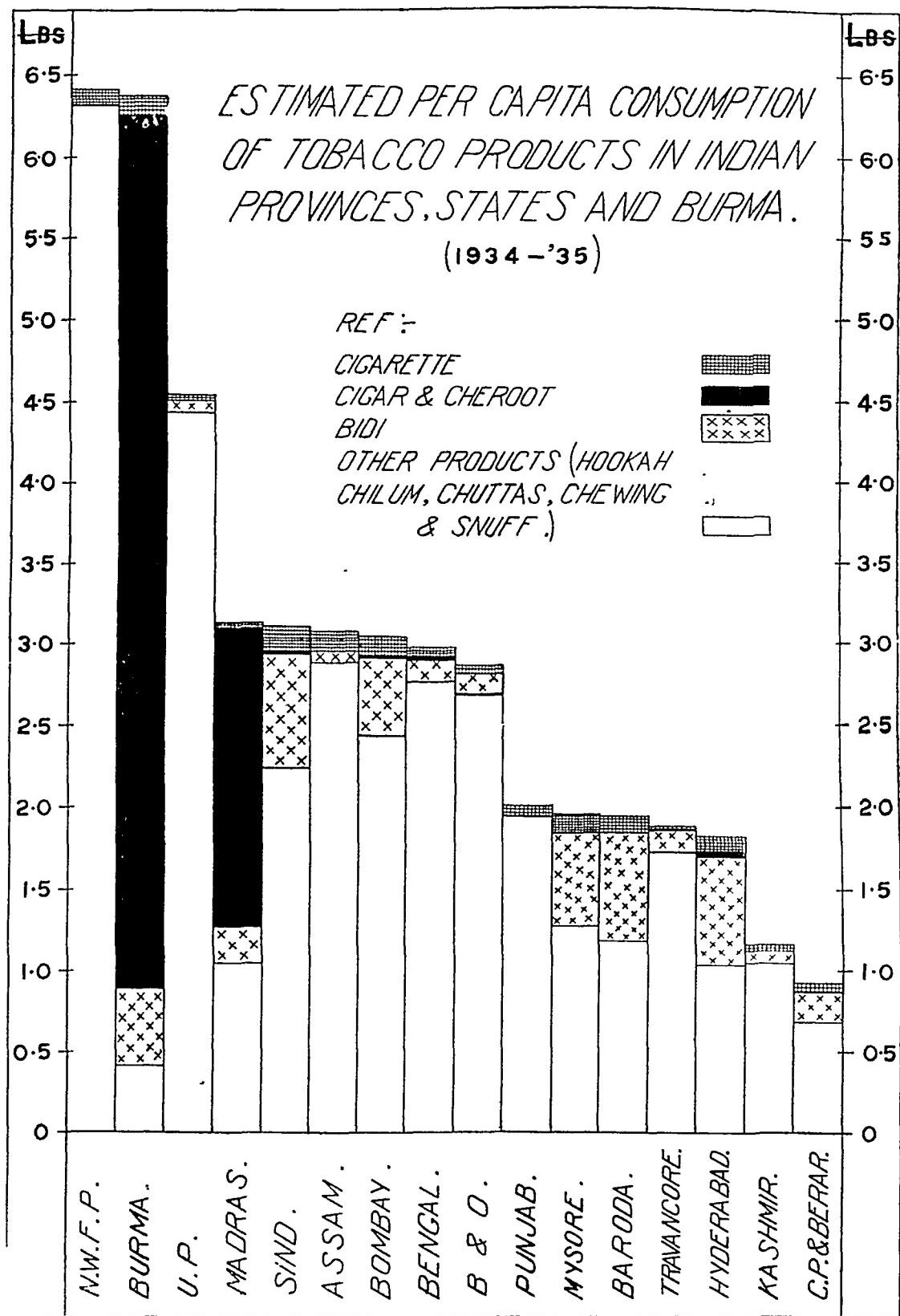
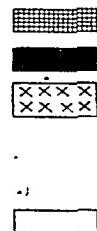
(1934 - '35)

REF :-

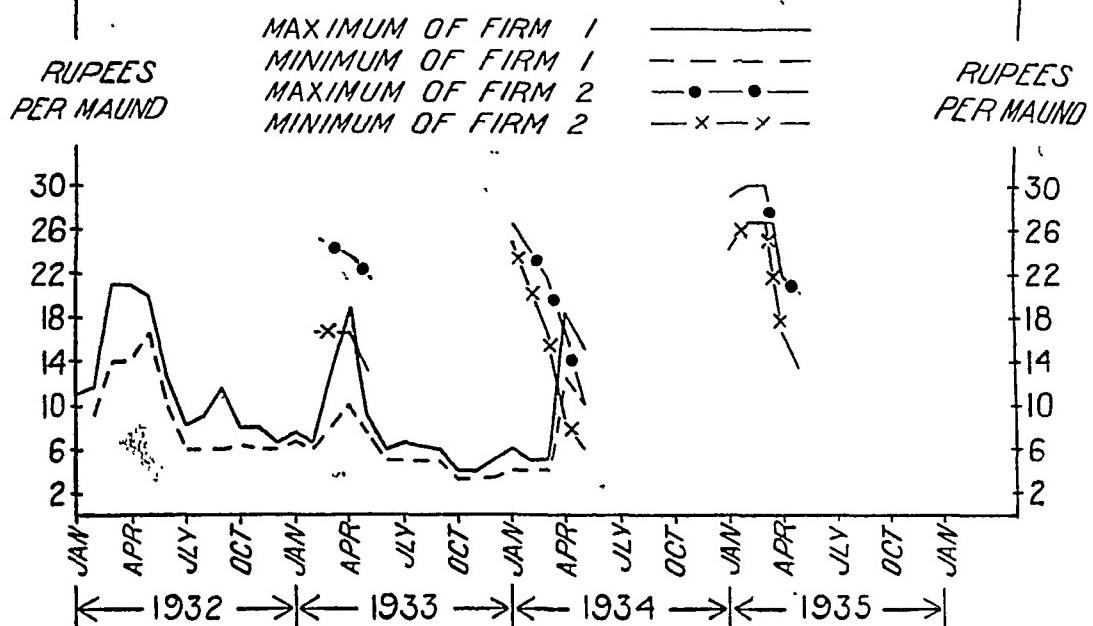
CIGARETTE

CIGAR & CHEROOT

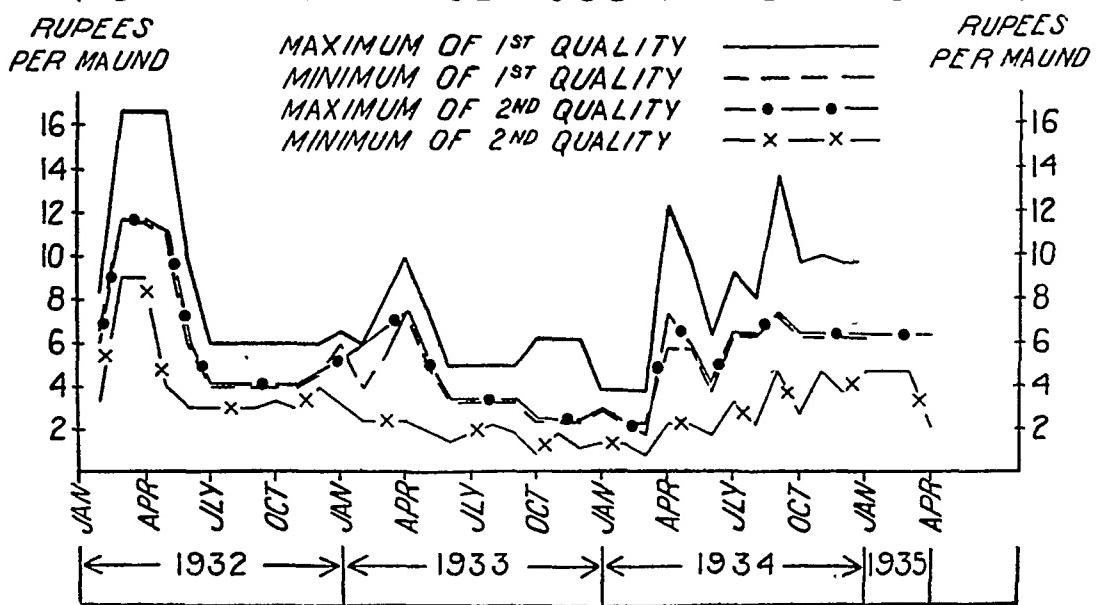
BIDI

OTHER PRODUCTS (HOOKAH
CHILUM, CHUTTAS, CHEWING
& SNUFF.)

AVERAGE MONTHLY WHOLESALE PRICES PER MAUND OF FLUE-CURED VIRGINIA CIGARETTE TOBACCO AT GUNTUR



AVERAGE MONTHLY WHOLESALE PRICES PER MAUND OF SUN-CURED VIRGINIA CIGARETTE TOBACCO AT GUNTUR



Estimated consumption of cigarettes in the provinces and States of India and in Burma in 1934-35.

Province or State.	Total consumption.	Per capita.		Nos.
		lb.	lb.	
Assam	1,129,796	0·125	44	
Bengal	2,741,506	0·054	19	
Bihar and Orissa	1,640,000	0·042	15	
Bombay	2,214,000	0·118	41	
Central Provinces	701,674	0·014	15	
Madras	1,372,434	0·028	10	
N. W. F. P.	205,000	0·083	29	
Punjab	1,429,342	0·058	20	
Sind	632,302	0·155	54	
United Provinces	1,466,816	0·029	10	
Baroda	281,834	0·111	39	
Nizam's Dominions	1,312,000	0·087	30	
Kashmir	164,000	0·044	15	
Mysore	718,484	0·107	37	
Travancore	50,020	0·009	3	
Other areas	3,957,150	0·075	26	
Total India ..	20,016,358	0·057	20	
Burma	1,731,840	0·127	44	

NOTE.—The quantity shown is in terms of the tobacco contents.

The per capita consumption in India thus works out at 20 cigarettes. It is highest in *Sind* at 54, though for the cheaper brands mostly. *Assam* comes next with as large a demand as 44. The demand for high grade cigarettes is highest in the sadar Sub-division of Lakhimpur in *Assam* presumably because of the comparatively large European population. *Bombay* consumes large quantities of cigarettes and her per capita consumption works out at 41. There is an extensive demand in the province for packets of ten cigarettes sold at one anna per packet or two cigarettes per pice in retail. The per capita demand for cigarettes in the *North-West Frontier Province* is estimated at 29, mainly of the cheap brands. In the *Punjab*, a large section of its people are prohibited the use of tobacco in any form by the tenets of Sikhism. Sikhs constitute about 13 per cent. of the population of the province, and this appears to be the main reason why the consumption of tobacco products there is so low as compared with the neighbouring provinces of *Sind*, the *North-West Frontier Province* or the *United Provinces*, as would be seen later. The cigarette however being in fashion appears comparatively unaffected and to have a fair number of consumers. Of the total cigarette smoking population about two-thirds smoke low quality, a fourth medium quality and remainder high quality cigarettes. The consumption in *Bihar and Orissa* and *Central Provinces* is about the same, being 15 cigarettes per capita. It is estimated that only about

2 per cent. of the smoking population in the *Central Provinces and Berar* smoke cigarettes. In *Madras* and the *United Provinces* the demand for cigarettes is distributed all over the province, and the rate per head is about 10 cigarettes.

Among the States, *Baroda* consumes large quantities of cigarettes and the demand is met mainly by the cigarettes imported from outside the State. There is a cigarette factory in *Baroda*, but a very large portion of the cigarettes manufactured in it are consumed outside the State. In *Mysore* most of the cigarettes smoked are of low grades. The entire demand in the State with the exception of a small quantity of imported cigarettes is for the Indian product. The consumption of cigarettes in the *Nizam's Dominions* is fairly large being about 30 cigarettes per capita.

Burma is a heavy consumer of tobacco products and her consumption of cigarettes falls in line with her reputation as such.

(c) *Cigars and cheroots*.—The following statement gives the quantitative demand for cigars and cheroots in the important consuming provinces and States of India and in *Burma* in 1934-35 :—

Estimated consumption of cigars and cheroots in India and Burma in 1934-35.

Province or State.	Quantity consumed.	Consumption per capita.		Nos.
		lb.	lb.	
Bengal	998,760	0·020	4	
Bihar and Orissa	8,528	*	*	
Bombay	328,000	0·014	3	
Central Provinces and Berar	60,270	0·004	1	
Madras	89,631,986	1·861	372	
N. W. F. P.	18,040	0·007	2	
Punjab	20,418	0·001	*	
Sind	60,024	0·014	3	
United Provinces	51,250	0·001	*	
Nizam's Dominions	410,000	0·027	5	
Mysore	56,334	0·008	2	
Travancore	29,520	0·005	1	
Other areas	816,768	0·012	3	
Total India	92,489,898	0·265	53	
Burma	73,062,000	5·370	547	

NOTE.—The weight of the tobacco is in terms of net weight.

*Negligible.

Madras ranks first and is outstanding among the provinces of India as regards the consumption of cigars and cheroots, the annual per capita consumption being estimated at 372. In the *Circars*, especially in the *Vizagapatam* and *Godavari* districts of the Presidency the use of cheroots is almost universal among the smoking population. The annual consumption in *Bengal* works out at 4 cigars and cheroots per capita. *Nizam's Dominions* is the only State where there is any appreciable consumption of cigars and

cheroots. In other provinces and States the demand for cigars and cheroots is extremely small.

In *Burma* the consumption of cheroots is almost universal among the adult population and even children. There are two kinds of cheroots in use. One is the ordinary kind of cheroot or *Hse-byin-leik* wrapped in tobacco leaf, and the other is the torch cheroot or *Hse-baw-leik* made with a mixture of chopped tobacco stalk and shredded leaf as filler, and the sheath of the maize cob or the prepared leaf of "Thanat-bin" (*Cordia Spp.*) or the sheath which envelops the leaf base of the "Kun-bin" (areca-nut tree), as the wrapper.

(d) *Pipe and cut tobacco*.—The demand for this type of manufactured tobacco is concentrated in big cities and comes mainly from the European and Anglo-Indian population. The quantity consumed in *India* in 1934-35 is estimated at the extremely small quantity of 517,830 lb. In *Bombay* the annual consumption of pipe and cut tobaccos is about 246,000 lb. which works out at 0.013 lb. per capita. The total demand in *Bengal* is 139,810 lb. and the per capita comes to about 0.003 lb. In the other provinces and Indian States the demand is extremely small. In *Burma* the consumption of pipe and cut tobacco is negligible and is estimated at 11,480 lb. in 1934-35.

(e) *Bidis*.—The *bidi* is the poor man's cigarette. The statement given below shows the estimated consumption of *bidis* in the provinces and States of India and Burma in 1934-35.

Estimated consumption of bidis in India and Burma.

Province or State.	Total Quantity.	Per capita.	
		lb.	Nos.
Assam	560,880	0.062	62
Bengal	6,796,980	0.133	133
Bihar and Orissa	4,895,400	0.126	126
Bombay	8,919,140	0.477	477
Central Provinces and Berar	2,870,000	0.179	179
Madras	10,295,100	0.218	218
N. W. F. P.	3,075	0.001	1
Punjab	127,797	0.005	5
Sind	2,804,400	0.687	687
United Provinces	3,424,512	0.070	70
Baroda	1,679,483	0.660	660
Nizam's Dominions	10,004,000	0.664	664
Kashmir	254,692	0.068	68
Mysore	3,852,811	0.572	572
Travancore	750,300	0.137	137
Other areas	11,449,354	0.217	217
Total India	68,687,924	0.197	197
Burma	6,479,968	0.476	476

NOTE.—Only the tobacco contained in the *bidis* has been taken into account in the statement. The weight of the wrapper leaf is excluded.

LIICAR

The per capita consumption of *bidis* in India works out at 197 *bidis*. *Sind* ranks first among the provinces as regards the annual consumption of *bidis*. *Bombay* comes next in rank and the importance of the province as a consumer of *bidis* is in keeping with the fact that it is the most important area for the cultivation of *bidi* tobacco which is despatched to all parts of the country. *Madras* has a per capita consumption of 218 *bidis*. *Central Provinces and Berar* have the most important *bidi* manufacturing centres in the country but the per capita consumption comes to only 179 *bidis*. *Bengal* and *Bihar and Orissa* come next with 133 and 126 *bidis* per capita. In the *United Provinces* there is only a small demand for *bidis*. This is not surprising in view of the fact that the people of the province are mainly *hookah* smokers. In the *Punjab* and *Assam* also the demand for *bidis* is small. The consumption of *bidis* in the *North-West Frontier Province* is extremely small and the consumption is mainly confined to Indian troops who are recruited from the *bidi* smoking areas and the servant class in the towns. It is doubtful whether the *bidi* would ever appeal to the sturdy *Pathan*.

The demand for *bidis* in the *Nizam's Dominions* appears to be the largest among the Indian States. In *Baroda* the annual consumption stands at the high figure of 660 *bidis* per capita. In *Mysore* also there is a large demand for *bidis*.

On the whole it appears that the *bidi* is a popular smoke in western and southern parts of the country. Of the two cheap smokes, the *bidi* and the *hookah*, the latter is more popular in the north where the *bidi* occupies but a place of minor importance.

In *Burma* the consumption is large and works out at 476 *bidis* per capita.

(f) *Other tobacco products*.—The estimated demand for manufactured *hookah* and chewing tobaccos and snuff is shown below .—

Province or State.	Total Quantity.	Per capita consumption.	
		lb.	lb.
Assam	26,256,892	2.9	
Bengal	142,795,374	2.8	
Bihar and Orissa	105,828,796	2.7	
Bombay	46,257,020	2.5	
Central Provinces and Berar	11,344,290	0.7	
Madras	50,242,876	1.0	

Province or State.	Total Quantity.	Per capita consumption.
	lb.	lb.
N. W. F. P.	15,663,312	6.3
Punjab	48,412,718	2.0
Sind	9,268,378	2.3
United Provinces	219,021,262	4.4
Baroda	3,068,358	1.2
Nizam's Dominions	15,924,072	1.1
Kashmir	3,993,974	1.1
Mysore	8,705,530	1.3
Travancore	9,571,778	1.8
Other areas	118,714,500	2.3
Total India		2.4
Burma	5,579,289	0.4

NOTE.—Only the tobacco content has been taken into account.

The per capita consumption in the *North-West Frontier Province* is very high and largely consists of *hookah* tobacco. *Hookah* smoking is almost universal amongst the smoking population of the province and more especially in the rural areas. A *hookah* is considered as an essential requisite of the village *Hujra* (meeting place) and small fancy bags containing supplies of tobacco for the purpose are carried by most of the smart looking villagers. The use of snuff also is popular among the people.

In the *United Provinces*, an important centre for *hookah* tobacco manufacture, the consumption is heavy and works out at 4.4 lb. per capita. The major portion of the demand is for *hookah* tobacco, although there is considerable demand for chewing tobacco as well.

In *Assam* the demand is more for *hookah* tobacco. *Hookah* smoking is prevalent in all the districts in the plains and to a smaller extent in the hilly regions. The demand for chewing tobacco is greater in the Upper Assam valley than in the Lower Assam and Surma valleys and comes mainly from the rural population and coolies in the tea-gardens. The consumption of chewing tobacco

made from *Jati* tobacco is confined chiefly to the districts in the plains.

In *Bengal* these tobacco products find more favour with the rural population. Bengal consumes mainly *hookah* tobacco and her demand for chewing tobacco and snuff is small. In *Bihar* and *Orissa* large quantities of both *hookah* and chewing tobaccos are consumed. The demand for *hookah* tobacco in *Bombay* is negligible. Chewing tobacco is however in demand practically all over the presidency. The consumption of snuff is generally confined to old people. In the *Punjab*, local tobacco is in demand for the manufacture of *hookah* tobacco and the imported tobacco is used to impart strength to it.

Madras consumes only a negligible quantity of *hookah* tobacco. The demand is mainly for pit-cured *Meenampalayam* chewing tobacco and the chief consuming districts are Madura, Madras, Tanjore, Malabar, Trichinopoly, Vellore, North Arcot and South Arcot. The consumption of ordinary chewing tobacco is concentrated at Madura, Trichinopoly, Tinnevelly, Nellore and Ganjam districts and that for scented chewing tobacco at Madras, North Arcot and Chingleput districts. South Kanara satisfies her demand for chewing tobacco from local production. Madras snuff is enough to meet the entire demand of the Southern districts and the requirements of the West Coast are met by Mangalore snuff. Snuff has made practically no entry into the Circars where the people prefer cigars and cheroots.

In *Mysore* and *Travancore* States the consumption under this head comprises mainly of chewing tobacco. In *Mysore* the habit of chewing tobacco in the form of bits or powder is fairly common. In *Travancore* the demand for Tinnevelly chewing tobacco is restricted to the labouring classes in Tovala, Agesteeswaram, Shenkotta and Devicolam areas. Of the two kinds of Coimbatore chewing tobacco, *Thallaykettu* and *Naddukettu*, the latter is more expensive than the other and hence its consumption is restricted. In the whole of *Travancore* State there is a special liking for *Jaffna* tobacco for chewing purposes and large quantities are imported annually from Ceylon as already noted earlier in Chapter I.

Burma consumes considerable quantities of chewing tobacco. The local demand for *hookah* tobacco and snuff is extremely negligible.

B.—Qualitative demand.

(1) UNMANUFACTURED TOBACCO.

The quality characteristics of the principal commercial types of tobacco have already been described in the previous chapter. They may however be summarised at this place. In the case of flue-cured Virginia cigarette tobacco, a leaf with bright lemon colour and fine silky texture with the least amount of blemish and damage is given preference to others. The most desirable qualities in sun-cured Virginia tobacco are, bright colour, good texture and absence of blemishes, and those of sun-cured *Natu* (country) tobacco are bright colour, good texture and body, and lack of blemishes on the leaf. The flavour in all these types should be pleasing and neutral or free from pungency and objectionable—e.g., earthy—or unusual aromas.

The buyers of cigarette tobacco are the manufacturers, and the exporters from the Guntur District. The principal cigarette factories are located in Bombay, Sukkur, Jullundur, Allahabad, Calcutta, Saharanpur, Monghyr and Bangalore. The cigarette factories at the last three places belong to the Tobacco Manufacturers (India) Ltd. and the Cigarette Manufacturers (India) Ltd., who specialise in the manufacture of medium and high grade cigarettes. There are also cigarette factories at Hyderabad (Deccan) and Bezwada. Excepting the factories belonging to the Tobacco Manufacturers (India) Ltd. and the Cigarette Manufacturers (India) Ltd., and those working in Calcutta, the other factories demand leaf of mediocre and low grades. The demand for imported cigarette leaf and for high class Indian cigarette tobacco is almost entirely confined to the factories located in Calcutta and those belonging to the Tobacco Manufacturers (India) Ltd. and the Cigarette Manufacturers (India) Ltd.

In the manufacture of cigars there is a greater demand for leaf with uniform brown colour and without any greenish tinge, good and continuous burn, strong and agreeable flavour, good size and pleasant aroma. After burning the leaf should leave behind white ash. A combination type of leaf which will serve as a wrapper, binder and filler is given preference. The leaf used as filler and binder has colour varying from light yellow to light brown. It is mild in flavour, thin in texture and light in weight. Leaf with light golden colour tending towards light brown, silky texture, glossy and lustrous surfaces, leaving white ash after burning is the one used as wrapper in superior cigars. The demand for imported and local cigar tobacco is from manufacturers of cigars from Dindigul, Trichinopoly and Madras and in the case of Burma, from Rangoon, Mandalay and other small manufacturing centres.

In the manufacture of cheroots, the purchase of the leaf is made generally on considerations of colour, size, texture, strength and aroma. A leaf with uniform light brown colour is preferred. In Guntur and Godavari districts of Madras, the local *Lankas* tobacco is used both as wrapper and filler, the larger sized leaves with dark colour being preferred for wrapper and those with light colour for filler. The *Lankas* tobacco is also in demand in Madras, Trichinopoly and Tinnevelly districts for the manufacture of cheroots. On the west coast in Cannanore, large leaves of Bhavani tobacco with thin texture are in demand for wrapper, and Mettupalayam tobacco which is stronger than the former is used as filler.

The chief types of *bidi* tobacco in demand all over the country are *Gujerati* and *Nipani* *bidi* tobaccos. On account of its larger production *Gujerati* tobacco is consumed to a larger extent than *Nipani*. The *Nipani* tobacco is considered stronger than *Gujerati*, and these two varieties are mixed together in different proportions to manufacture *bidis* of varying strength. Local produce is also in demand for *bidis* to a certain extent in some areas, e.g., in Hyderabad and Mysore. Occasionally the locally produced tobaccos, as for instance, *Calcutta* variety grown in the United Provinces and the Punjab or *bidi* tobacco grown in Mysore and Hyderabad are mixed

with *Gujerati* and *Nipani* tobacco to manufacture *bidis* of lower quality. The *Nipani* and *Gujerati* tobaccos comprise of strong and thick leaves broken into small pieces. *Gujerati* tobacco has a light orange yellow colour rather more greenish, while the colour of *Nipani* is brownish red with a slight greenish tinge. The powder of good quality *bidi* tobacco contains the least quantity of stalks and stems. Reddish coloured *bidi* tobacco is preferred in Sind, Rajputana, the Central Provinces, Calcutta and Rangoon. *Bidi* powder with reddish yellow colour of greenish tinge is preferred in the Bombay Presidency and Kathiawar. Since *Nipani* is considered to be stronger in flavour than *Gujerati*, it has a very large demand from manufacturers in Northern India, particularly from Delhi, the United Provinces and Bengal.

The chief varieties of *hookah* tobacco in demand are *Calcuttia*, *Kampilla*, *Desi*, *Kandhari*, *Gobhi* and *Motihari*. A broad, coarse and thick leaf with thin veins and midrib, strong flavour, slow continuous burn and brown earthy colour is preferred for *hookah* manufacture. Different varieties and qualities of leaf are mixed together in different proportions to give strength and body to the manufactured product, and each manufacturer specialises in his own particular blend. The principal *hookah* manufacturing centres where *hookah* tobacco is largely in demand are Peshawar, Lahore, Delhi, Lucknow, Cawnpore, Allahabad, Benares, Gaya, Calcutta, Dacca and Hyderabad (Deccan).

In the case of chewing tobacco the principal quality considerations are the body and thickness of the leaf, colour, strength and freedom from damage and disease. A thick leaf with uniform body, good absorbing capacity, reddish brown colour and medium strength and a biting taste is considered best for chewing purposes. In manufacturing, the different qualities are blended in certain proportions to get the desired strength, body and taste. High quality chewing tobaccos are in demand from manufacturers in big cities, like Delhi, Benares, Lucknow, Madras, etc.

The general quality factors of good snuff tobacco are that it should be a strong tobacco with bright yellow colour, thick texture besides being brittle, so that it can be reduced easily to fine powder. Superior quality snuff tobaccos are in demand from the manufacturers in Madras and Mangalore in the Madras Presidency, Peshawar in the North-West Frontier Province and Hazro in the Punjab.

(2) TOBACCO PRODUCTS.

There are three classes of cigarettes sold in India and Burma : high, medium and low grades. Cigarettes may be further classified according to strength of flavour into mild, medium and full (strong). High class cigarettes contain tobacco of bright golden yellow colour, the cuts consisting of pure leaf and no stems. The medium grade cigarettes contain tobacco of bright yellow colour, with a small percentage of tobacco of lower quality, and the cuts contain small quantities of stems. Its flavour is considered stronger than that

of the high grades of medium flavour. In the low grade cigarettes the tobacco is darker in colour and lower in quality, the flavour being stronger than the medium grade cigarettes. There are numerous brands of cigarettes in the market and each brand has its own devotees. Usually, the poorer classes of smokers go in for cheap brands, and the middle and the wealthy classes in towns and cities purchase superior cigarettes. Roughly 70 per cent. of the cigarettes sold in India consist of the cheap brands, more than 20 per cent. medium and the rest high grades. In the rural areas the cigarettes consumed are entirely low grade, the demand for medium and high grades being concentrated in towns and cities. The imported cigarettes comprise of high and medium grades and are almost entirely demanded in the urban areas.

Cigars of different quality are consumed mostly by the wealthy classes and generally looked upon as a luxury. The quality of a cigar depends upon the quality of the tobacco used as filler, binder and wrapper. The mild type of cigar only is generally preferred and the stronger ones are relegated to the cheroot class. The cheroot is much cheaper than the cigar and the demand for it is considerably larger. The consumption of cheroot is very largely confined to the Madras Presidency, the Nizam's Dominions and Burma. In the Madras Presidency, the districts on the East Coast generally demand stronger types of cheroots than those on the West Coast.

In the case of *bidis* cheapness and popularity of the brand (due generally to advertisement) are the important factors accounting for large sales by certain factories. A *bidi* of medium size and strength and containing as large an amount of tobacco as possible is generally preferred. The colour of the wrapper leaf gives attractiveness and one with bright yellowish colour is very much liked by consumers. The qualitative demand for *bidis* is found to vary from one tract to another. Thus in Bombay, Sholapur is credited with the demand for stronger *bidis* made of strong and almost a black coloured tobacco. The demand for such *bidis* comes particularly from the textile mill workers of the city. In other areas of the Bombay Presidency, however, *bidis* made of tobacco with mild flavour and good finish are in demand. In Rajputana the United Provinces and Bengal *bidis* of stronger flavour are generally preferred. In the Central Provinces and Sind there is greater demand for medium flavoured *bidis*. Medium and large sized *bidis* with strong flavour are generally preferred by the working classes while small sized *bidis* with mild flavour are preferred by educated lower and upper middle class people.

The quality of the manufactured *hookah* tobacco varies from place to place in accordance with the methods of preparation and the kind and proportion of the ingredients used. There are two chief qualities of *hookah* tobacco, namely, *Karwa* (strong and pungent) which is considered to be of superior quality and the other *Ghatia* or *Mitha* or *Sada* (mild). The first is a strong smoke whereas the other a mild one, as their names imply. Some people, however, prefer tobacco of medium strength and for them *Karwa* type and

Mitha tobaccos are blended in different proportions. While the *Karwa* type of tobacco is in general demand in the rural areas (of the United Provinces, the Punjab, the North-West Frontier Province, Western Rajputana States and Sind), the middle classes in these provinces and States use either the *Mitha* or the mixtures. The southern and eastern parts of the country seem to prefer the mild type generally.

In the case of chewing tobacco also the quality demanded varies from one place to another. Manufactured chewing tobacco is sold in three forms, powder, pills and paste (*Zarda* or *Surti*, *Goli* and *Qiwam*). The powder may be fine or coarse (*Danedar* or *Patti*) and either black or brown (*Kala* or *Pili*). The qualitative differences are based on the quantity and number of spices and scents used. Some wealthy people demand scented and flavoured preparations even with some tonic ingredients. There is a belief in the United Provinces and Delhi that some of the chewing tobaccos cure pyorrhœa. Lucknow and Benares are famous for the manufacture of chewing tobacco.

The quality of snuff depends on the method of preparation and blending. In Madras three kinds of snuff are demanded by the people, namely, dark coloured, brown and scented. Some people prefer to take a mixture of brown and scented snuff. In the Peshawar market there are two qualities of snuff, the first made from top leaves and the second from middle and bottom leaves of the tobacco plant. In this case also a mixture of the two is occasionally demanded.

C.—Seasonal variations in demand.

(1) UNMANUFACTURED TOBACCO.

(a) *Total*.—Broadly speaking the demand for the *unmanufactured tobacco* is maximum soon after the harvest. The merchants and manufacturers who have fairly good storing accommodation prefer to purchase their stocks at this time and generally go to the spot to do so, in order to be sure of quality. The growers also like to sell tobacco in the post harvest period itself since the prices of tobacco do not improve on storing, particularly in the case of cigarette and cigar leaf and better quality cheroot and chewing tobaccos, and as the quality of these types deteriorates in the absence of adequate storing facilities. The fear of rains constitutes an additional reason for the purchase or disposal of the produce as early as possible.

Tobacco growers are more fortunate than producers of most agricultural products in that the demand from processors and manufacturers is at its peak when supplies are greatest. The demand and supply curves follow the same general course and the following figures of monthly total volume of traffic in unmanufactured tobacco by rail and river indicate roughly the seasonal variations.

Average monthly volume of traffic in unmanufactured tobacco by rail and river in India.

Month.	Quantity. (Thousand maunds.)
April	.. 382
May	.. 451
June	.. 387
July	.. 290
August	.. 232
September	.. 203
October	.. 231
November	.. 204
December	.. 185
January	.. 171
February	.. 210
March	.. 284
<hr/>	
Total	.. 3,230
<hr/>	

It is seen that about 56 per cent. of the unmanufactured tobacco entering the inter-provincial trade is moved during the five months, March to July. The movement of traffic falls in August and September, but in October there is a small recovery due mainly to the cessation of autumn and commencement of cold weather. There is again a fall from November to January, with January as the month of smallest rail and river traffic in unmanufactured tobacco. It may be stated, however, that this monthly movement of traffic does not indicate the consumers' demand for manufactured tobacco, but rather the demand of manufacturers who prefer to buy before the quality deteriorates and when the stocks are high in the market. While the consumers' demand for manufactured tobacco products is slightly higher during the winter months, the manufacturers' demand for unmanufactured tobacco is at its minimum during this period. The demand from manufacturers commences to rise in February when supplies of fresh crop begin to arrive in the market and is at its maximum somewhere about the month of May.

(b) *Cigarette tobacco.*—There are two sources of unmanufactured cigarette tobacco, viz., imports and local production. As already discussed in the supply chapter, January and February are the months of high imports of unmanufactured tobacco from abroad and together account for about 29 per cent. of the average annual imports. March, April, June and December are months of low imports, while imports during July to September are fairly high and account for 26 per cent. of the total. The local supply of

cigarette leaf comes almost entirely from the Guntur area where almost all the supply available with growers is sold off from January to March in the case of Virginia variety and from April to June in the case of *Natu* (country) variety on account of the high demand prevailing during these periods from the manufacturers and exporters. As already noted in the previous chapter large quantities of sun-cured *Natu* (country) cigarette leaf are exported to Japan and as exports to Japan are made on orders which are received by exporters some time in September, the demand for this type of tobacco rises again during September to November in years of heavy orders. The small quantities of Virginia leaf produced in the United Provinces and Mysore are sold off immediately after harvest, i.e., during October to November and November to January respectively. The demand for locally grown cigarette tobacco on the part of manufacturers and exporters is thus at its maximum during the post-harvest months and minimum during the pre-harvest period.

(c) *Cigar and Cheroot tobaccos*.—In Madras the demand for cigar and cheroot tobaccos is at its lowest some time in January when the new crop is about to be harvested. The manufacturers and merchants purchase the largest quantities during the post-harvest months, namely, April to September when the supplies also are heavy. The months of heaviest purchases and hence highest demand are usually May and June. From July the demand begins to decline to rise again to a small extent by about December after which there is a fall from January.

In Bengal, the normal marketing season is from May to October, when the demand is also high, the period of maximum demand being May to July, when about four-fifths of the growers' crop is purchased by merchants and manufacturers.

The demand for cheroot tobacco in Burma is also maximum during the post-harvest period, namely, April to July, when almost all the crop is purchased by manufacturers and merchants from the growers.

Comparing these seasonal variations in demand with those of prices discussed in the next chapter, it will be noticed that the prices of important types, e.g., *Lankas* in Godavari district of Madras and *Jati* of Rangpur in Bengal are low during the post-harvest months and commence to rise after about four to six months. This rise in prices, it may be stated, is in no way due to the rise in demand on the part of merchants and manufacturers and is entirely on account of the fact that tobacco improves in smoking quality after it is stored for some months under proper conditions, which will be discussed later in the chapter on storage and stocks.

(d) *Bidi tobacco*.—The demand for *bidi* tobacco also is the highest during the months immediately after harvest. In the *Charotar* area of the Bombay Presidency the demand on the part of manufacturers, merchants and exporters commences to rise by about the end of December when the earliest crop is offered for sale. By January the best qualities of the crop appear on the market and

on account of the keen competition among the buyers to secure these qualities the prices also rule high. The maximum purchases by the buyers are made during March and April. By May the demand commences to decline and by the end of June the farmers in this area sell almost the whole of their crop. June to October is a period of low demand. There is a small improvement in demand from the end of October to the end of November followed by a decline in December.

In the *Nipani* area also the demand is at its maximum during the post-harvest months. It commences to rise in January when the fresh crop begins to arrive in the market and is at its greatest during February and March. Over four-fifths of the tobacco is sold off during the period February to May. There is a slight improvement in the demand by about the end of October which continues till December.

In both the *bidi* tobacco producing areas the prices during October to December are at a higher level than those prevailing during post-harvest months, but these high prices are entirely due to the improvement in the smoking quality of tobacco on account of storage.

(e) *Other tobaccos*.—The demand for unmanufactured tobacco for *hookah*, chewing and snuff purposes is also high soon after harvest when the manufacturers and merchants have opportunities to satisfy themselves as to the quality of the stuff they purchase. In *Bengal*, almost all the *hookah* and chewing tobaccos are sold from April to October, the months of maximum sales being May to July. In *Bihar*, the crop begins to arrive in the market from about the end of March when the demand from manufacturers and merchants commences to rise. The maximum demand is from about the middle of May to the middle of June. Over 80 per cent. of the *hookah* and chewing tobaccos are sold off by the growers before the middle of June. From July to September the demand continues at a low level. It rises again in October to a small extent. In the *Madras* Presidency the manufacturers and merchants of chewing tobacco make the maximum purchases from March to July when about three-fourths of the growers' crop is sold off. In the *Punjab*, the *hookah* manufacturers and merchants purchase about 80 to 90 per cent. of their requirements of tobacco grown in the *Punjab* from June to October. Similar is the case in the *United Provinces*, and over three-fourths of the crop is sold off to buyers from May to August, but the months of maximum demand in both the provinces appear to be June and July.

(2) TOBACCO PRODUCTS.

(a) *Cigarettes*.—The monthly demand for cigarettes in India is more or less uniform throughout the year except during the winter months when it increases to a slight extent. The seasonality of demand for cigarettes may be indicated roughly by the figures given below of the approximate monthly outward traffic at three important distributing centres in the *United Provinces*, *North Bihar* and *Mysore*.

Approximate monthly outward traffic in cigarettes at three important centres of distribution in the U. P., North Bihar and Mysore.

Months.	U. P.	North Bihar.	Mysore.
	(Thousand cigarettes.)	(Maunds.)	(Maunds.)
January	98,000	700	11,000
February	112,000	500	9,000
March	135,000	500	10,000
April	120,000	600	13,000
May	145,000	700	12,000
June	115,000	500	11,000
July	104,000	600	9,000
August	122,000	400	7,000
September	124,000	500	9,000
October	129,000	800	10,000
November	161,000	700	9,000
December	144,000	600	11,000

The statement shows the cigarette distributors' demand, but it also seems to indicate that the general demand is slightly higher during the winter months. During the remaining period of the year, it appears that apart from slight month to month variation, the demand is fairly uniform.

In *Burma* also the demand tends to be slightly higher during the winter months than in the remaining months of the year. The following figures of monthly coastal inward traffic in cigarettes in 1935-36 indicate roughly the seasonal variations, as there is no local production of cigarettes in *Burma*.

	Quantity in thousand lb.
April .. .. ..	.. 162
May .. .. ..	.. 147
June .. .. ..	.. 178
July .. .. ..	.. 139
August .. .. ..	.. 144
September .. .. ..	.. 120
October .. .. ..	.. 173
November .. .. ..	.. 139
December .. .. ..	.. 187

Quantity in
thousand lb.

January	..	..	..	185
February	..	..	..	195
March	..	..	..	180

About 54 per cent. of the inward coastal traffic in cigarettes is thus concentrated during the winter months, October to March. During the remaining periods fairly wide fluctuations are noticeable, the months of high demand generally alternating with those of low demand.

(b) *Cigars and Cheroots*.—It is reported that the demand for cigars and cheroots in *Madras* and *Bengal* is greater during rains and winter months. In *Sind* the demand is high during winter. In *Bihar* and *Orissa* and the *Punjab* the demand appears to be more or less uniform throughout the year. In *Assam* the demand is reported to decline during the rainy season. In *Coorg* there are two definite periods, namely, April to June and December to January when the demand expands considerably, the former because of the season for marriages and the latter on account of Christmas festivities.

The following approximate average monthly inward traffic of cigars and cheroots at a few centres indicates roughly the seasonal variations.

Approximate monthly inward traffic in cigars and cheroots.

(Lb.)

Months.	Bangalore.	Travancore.	Cochin.
January	6,700	2,500	300
February	7,900	2,600	300
March	5,300	2,200	500
April	5,500	2,800	400
May	5,300	2,100	200
June	5,100	2,400	300
July	6,500	3,300	200
August	6,700	1,600	1,200
September	7,000	2,700	200
October	4,800	3,100	500
November	6,400	2,700	300
December	4,400	2,800	500

The figures relating to Bangalore represent about 65 per cent. of the demand in the State. The Travancore and Cochin figures represent the entire demand within these States. But the figures for all the three centres do not reveal any definite periodicity showing as they do, wide fluctuations from month to month. However, they seem to indicate a general tendency for the demand to increase, though only to a very slight extent, during the winter months. The demand at other times is more or less steady.

The consumption of cheroots in *Burma* is reported to be steady throughout the year except for a slight tendency to increase during winter and months of heavy rainfall.

(c) *Bidis*.—The following figures of approximate average monthly outward traffic in *bidis* from important centres of manufacture in the Central Provinces, which supply *bidis* to all over India and even *Burma*; Nasik Road (Bombay) and Jhansi (U. P.) show in a general manner the periodicity of demand on the part of distributors.

(In maunds.)

	Months.	C. P.	Nasik Road.	Jhansi.
January	2,500	500	60
February	2,600	600	110
March	2,200	400	120
April	2,800	500	70
May	2,400	500	50
June	2,400	600	130
July	2,100	900	110
August	2,000	400	70
September	3,100	600	80
October	3,100	300	130
November	2,300	1,300	100
December	2,900	700	130

Although the figures do not exhibit clearly marked seasonal variations they show roughly that the demand is slightly greater in winter months and fairly steady during the remaining months of the year. There are, however, some territorial variations in the seasonality of demand. In *Assam*, the demand declines comparatively

during the rains. In *Coorg* the demand for *bidis* is high from April to June and in December and January.

Among the Indian States, in the *Nizam's Dominions* the demand is greatest in November to February. In *Mysore*, the demand appears to be slightly higher during the monsoon months, namely, May to September. In *Travancore* and *Cochin* no marked variation is reported except at the time of festivals.

(d) *Other tobacco products.*—The main areas using manufactured *hookah* tobacco are the N.-W. F. P., Punjab, U. P. and Bengal. Large quantities are also used in Bihar and Central India. From enquiries made, it appears that the demand is generally high during the winter months and seasons of religious and social festivals. During the other times of the year, the demand is fairly steady from month to month. In the rural areas the demand slightly rises during the post-harvest months when the cultivator has cash to spend on smoke and other recreations. In other areas in the south, *hookah* smoking is not so common and a very large section of the *hookah* smoking population is the Muslim. In these areas, demand is fairly regular from month to month except during the religious or social festivals.

In the case of chewing tobacco the demand does not exhibit any definite seasonality as can be seen from the following figures of average outward traffic in manufactured chewing tobacco from Benares which is famous for the manufacture of chewing tobacco all over Northern India.

Average monthly outward traffic in manufactured chewing tobacco from Benares.

<i>Month.</i>	<i>Maunds.</i>
January	55
February	43
March	45
April	52
May	51
June	42
July	44
August	43
September	47
October	45
November	48
December	39

In Southern India where there is a large consumption of chewing tobacco, small month to month variation is observed during periods of religious and social festivals and harvest seasons. Thus in *Coorg* the demand rises during the period, June to September, this being a busy season for farm labour to work in the paddy fields. There is again a rise in demand in December and January when paddy is harvested. In *Travancore* the demand rises in April and October on account of local festivals and again in December from the Christian people of the State. In *Mysore*, the demand is reported to be slightly high from March to June, but on the whole appears to be fairly even throughout the year.

The demand for snuff appears to be fairly steady from month to month, though here again, a tendency towards increase is noticeable during winter months, particularly from November to February. During months of heavy rainfall, July and August, the demand is reported to be slightly smaller.

D.—Trend of demand.

(1) UNMANUFACTURED TOBACCO.

No statistical data regarding the consumption of unmanufactured tobacco in India and Burma are available but it appears from enquiries that the general demand is slowly on the rise, more particularly for the Virginian type of cigarette tobacco. This is supported by the statement showing the net available supplies of all types of tobacco in India (Appendix XXVI) from which it is seen that the per capita net supply since 1931-32 has been slightly on the increase except in 1934-35 and 1936-37 when there was a slight fall. This general tendency of increased consumption of unmanufactured tobacco is seen more clearly in the case of *Burma* where there has been an increased demand every year except in 1932-33 and 1933-34. (See Appendix XXVII.)

(2) TOBACCO PRODUCTS.

(a) *Cigarettes*.—The annual consumption of cigarettes in India and Burma in 1934-35 is estimated at more than 7,600 million cigarettes as compared with the annual estimated figure of about 6,500 millions in the beginning of 1929 and under 1,060 millions before the War. The cigarette habit seems to be growing in every country of the world. Two factors appear to be primarily responsible for the expansion of the demand in India, namely, the gradual adoption of western ways of living by the people and the introduction of cheap cigarettes in the market. The popularity of cheap brands has been stimulated by their manufacture within the country by European and Indian owned factories, and a keen competition between foreign firms and smaller Indian manufacturers who are making a strenuous effort to obtain a share of this growing market.

This increased consumption of cigarettes in India is in consonance with the general rise in the demand of cigarettes throughout

the world as seen from the following figures of consumption per capita in some of the important countries :—

	Per capita in lb.				
	1913.	1920.	1924.	1929.	1932.
U. S. A. ..	0.60	1.56	1.88	2.77	2.32
United Kingdom ..	0.71	1.49	1.73	2.26	2.33
Germany ..	0.40	0.72	0.90	1.12	1.06
France ..	0.22	0.31	0.57	0.86	0.97

Thus in the United Kingdom the per capita consumption of cigarettes in 1932 was more than three times the pre-war figure and evidence shows that this increase continues. The greatest impetus to cigarette smoking was given during the last European War ; and within the last few years the increase in consumption has been largely due to women taking to the habit, some of them being heavier smokers than men to-day. This increasing popularity is also due to the fact that cigarette smoking besides being in some ways cleaner is more convenient, in so far as it has the advantage that a cigarette is easily taken and lasts for a shorter time.

In the *Punjab* the consumption of cigarettes is reported to be on the increase. It is estimated that the demand for medium and high grade cigarettes has decreased by about 25 per cent. during the last 4 or 5 years but that it is more than compensated by the large increase in the consumption of cheaper brands of cigarettes. The popularity of cheap brands is attributed to the general economic depression, the preponderance of low quality brands in the market and their cheapness. In the *North-West Frontier Province* there appears to be an increasing consumption of cigarettes following the growing popularity of cheap brands of cigarettes. In *Sind* and the *Central Provinces* also the demand for cigarettes, it is reported, has been steadily increasing during the past few years. In *Delhi* there was an increase of 64 per cent. in the consumption of cigarettes during the five years, 1930—34.

In the *Nizam's Dominions* a steady, though small, increase in the demand for cigarettes for the last few years is reported. Enquiries, however, show that this increase has been at the expense of *bidi* consumption. Recent years have witnessed a decline in the demand for medium and high grade cigarettes and it has been more than compensated by the increased demand for low grade cigarettes.

(b) *Cigars and cheroots*.—The cigar is a costly smoke and because of this and the long time it takes in smoking, it does not find favour with the majority of smokers. Besides, it is stronger

than a cigarette and hence does not appeal to the younger generation of smokers, the demand at present being confined chiefly to the older generation. The others enjoy cigar only as an occasional smoke. The following statement gives the per capita consumption of cigars in a few important tobacco smoking countries of the world :—

	Per capita consumption in lb.				
	1913.	1920.	1924.	1929.	1932.
U. S. A. ..	1.72	1.87	1.44	1.32	0.89
United Kingdom ..	0.11	0.06	0.05	0.04	0.03
Germany ..	1.33	0.99	0.97	1.17	0.92
France ..	0.16	0.13	0.09	0.09	0.05

It is thus seen that the consumption of cigars in the important cigar consuming countries has been declining steadily. The chief factor contributing to the decline is the growing popularity of cigarette smoking among the people.

We notice a striking fall in the consumption in the United Kingdom, the chief consumer of our cigars. This is due to a change in the habit of the British smoking public that began before the War. It was, however, accelerated by changed conditions during and after the War. The fall in the consumption continued even during the post-War period although the rate of decrease slowed down considerably since 1922. This is evidenced by the figures relating to the consumption of cigars in the United Kingdom, which in 1935 was 1,610,000 lb. against 2,000,000 lb. in 1924 and 5,000,000 lb. in 1907. The manufacturers and merchants attribute this to heavy increase in the duties, but in the main the changed smoking habit of the people seems to be responsible for such a phenomenal fall.

In India also, the consumption of cigars and cheroots has decreased considerably during the last few years. Most of the cigar factories in Madras and Burma,—the two important centres of manufacture of cigars,—which were doing good business in cigars some years back, now find it extremely difficult to run to their normal capacity. In Madras, the cigar industry which was employing during its prosperous period about 30,000 people, now hardly finds work for more than 10,000. Besides, many of the factories which were working throughout the year, now work on seasonal basis or reduce their work during winter months. The industry has also suffered a serious set-back in Burma during recent times.

(c) *Bidis*.—The demand for *bidis* was on the increase until recently because of the general increase in smoking habit of the people in India. But, due to the introduction of cheap brands of cigarettes into the market and the increasing demand for them, the consumption of *bidis* is slowly declining throughout the country. The manufacturers of *bidis* in the Central Provinces, an important centre, confirm this view and seem to complain against the growing popularity of the cigarette. Judged by the consumption in other countries, the consumption of cigarettes in India is, however, remarkably small, being only 20 per head per year.

(d) *Others*.—With regard to other tobacco products the consensus of opinion favours the view that the general demand has been slowly increasing.

E.—External Demand.

(1) EXPORT TRADE THROUGH LAND FRONTIER ROUTES.

Exports through land frontier routes of *India* consist entirely of *hookah* and smoking tobaccos. During the past 12 years the export demand through the land frontier routes has ranged from 9 to 11 million lb. per year. Since 1932-33 this demand appears to be on the decline. The annual average exports for the 5 years ending 1934-35 were 9.7 million lb. as compared with 10.3 million lb. during the quinquennium ending 1929-30. The principal destinations of exports through the land frontier routes are Iraq, Afghanistan, Central Asia, Turkistan, Tibet, Nepal and Bhutan.

Almost the whole of the land frontier trade in *Burma* is with Siam and China. The annual average exports during the quinquennium ending 1934-35 were 164,000⁰ lb. as compared with 372,000 lb. during the 5 years ending 1929-30. From 1935-36, however, there has been an improvement and in 1936-37 the Burmese land frontier exports were 430,000 lb. All these exports consist of the Burmese cheroot tobacco.

(2) EXPORTS BY SEA.

About 97 per cent. of the annual average exports by sea from *India* and *Burma* consist of unmanufactured tobacco. The important destinations are the U. K., Japan, Aden and Dependencies and Netherlands. The exports of tobacco products comprise cigars, cigarettes and *bidis* to a smaller extent. The chief markets for cigars are the U. K., Ceylon Straits Settlements and Aden, and those for cigarettes and *bidis* are Ceylon, Federated Malay States and Straits Settlements. Of the average annual exports of unmanufactured tobacco the U. K. takes 40 per cent., the other buyers in the order of importance being Aden and Dependencies, Japan and Netherlands. These 4 countries together take about 83 per cent. of the average annual exports of unmanufactured tobacco.

(a) *Aden and Dependencies*.—Indian tobacco is allowed free into Aden, and its exports from India to Aden and Dependencies have been definitely increasing from the year 1933-34. In 1936-37 the exports were 8.3 million lb. as against 5.4 million lb. in 1933-34. About 98 per cent. of the average annual exports to Aden and Dependencies are from Bombay, and about 97 per cent. of the aver-

age annual exports from all the ports of the Bombay Presidency go to Aden and Dependencies. Aden's trade in unmanufactured Indian tobacco is thus almost entirely with the Bombay Presidency.

Almost the whole of the unmanufactured tobacco exported to Aden and Dependencies is of the *bidi* and smoking type growing in the *Charotar* (Gujrat) area of the Bombay Presidency. A little over half the tobacco exported comes from Baroda State.

(b) *Netherlands*.—The average annual exports to Netherlands are about two million lb. valued at 2.73 lakhs of rupees. The exports during the pre-depression period also were about 2 million lb. annually. In 1930-31 she imported 2.3 million lb. but in 1931-32 she took only a little less than a million lb. but in 1933-34, she took 3.5 million lb., the highest quantity she purchased after 1925-26. From 1934-35, however, the exports to Netherlands are declining. The import duty on all unmanufactured tobacco entering Netherlands is 1.4 Florins for 100 kilos.

Netherlands obtains about 87 per cent. of her requirements of unmanufactured tobacco from her own colony, the Netherlands East Indies. About 10 per cent. is obtained from the United States of America, 2 per cent. from Greece, while India's share comes to about 1 per cent. The demand in Netherlands for Indian leaf is for cheap tobacco like the primings or scraps obtained from Virginia and country cigarette tobacco grown in the Guntur district and the *Jati* tobacco of North Bengal. The exports from India to Netherlands range from 1 to 2 million lb. per year, the quantity exported depending on the production in the Netherlands East Indies.

(c) *Japan*.—The average annual exports to Japan are 4 million lb. valued at about 11 lakhs of rupees. The exports during the pre-depression period (5 year ending 1929-30) average 2.3 million lb.

Till 1934-35 Japan used to take between 1 and 2 million lb. of unmanufactured tobacco annually from Bengal, but from 1935-36 she has been importing almost entirely from Madras. The exports to Japan are mostly of the lighter and darker grades of country cigarette tobacco grown in the Guntur district of Madras.

The average annual imports of unmanufactured tobacco into Japan are about 19.0 million lb. out of which the United States of America supply about 6.5 million lb. (35 per cent.), Philippines 5.2 million lb. (28 per cent.), India 4.0 million lb. (20 per cent.) and China 3.3 million lb. (17 per cent.). All imports from the United States are of the flue-cured types used in the manufacture of high grade cigarettes. Imports from the Philippines are almost wholly of the cigar types while those from China are of flue-cured leaf used in the manufacture of cheaper brands of cigarettes. Imports from India are entirely of sun-cured country tobacco utilised in pipe mixtures and cheap cigarettes. Small quantities are also imported from Turkey.

It is difficult to forecast the future trend of the demand from Japan on account of the present Sino-Japanese trouble. Japan herself grows a large quantity of tobacco, the average annual production ranging from 140 to 150 million lb. The trend of her tobacco

production is on the increase during the past 5 years at the rate of 2 to 3 per cent. per annum, and it is expected that the production will continue to expand at the same rate during the next 5 years, particularly in Korea where the conditions for the production of flue-cured leaf are reported to be encouraging. It is well known that the policy of the Japanese Empire is to become self-sufficient as far as possible in all lines of production. Exports are being encouraged and imports discouraged. In consequence, the trend of imports into Japan is expected to fall within the next few years. Imports into Japan, particularly from the United States and India are fast dwindling for the past 3 years. Exports from India to Japan in 1936-37 were only 3 million lb. as against 5.6 million lb. in 1935-36. In 1937-38, there was a further decline to 2.3 million lb. Imports into Japan from China, however, are expected to increase on account of the increasing production of flue-cured tobacco in China and the lower prices at which China's product is offered for sale in the Japanese market. In Japan all aspects of tobacco industry are controlled by a Tobacco Monopoly. Within recent months the Tobacco Monopoly has been required to furnish larger revenues to meet the increasing expenditure of the Japanese Government. This has already resulted in an increase in the prices of tobacco products, in consequence of which the consumption in Japan might be restricted. It is perhaps not known that Japan herself exports fairly large quantities of unmanufactured tobacco and is trying to build up her trade in this line for the last few years. Her annual exports to China range from 2 to 3 million lb. and in 1936-37 China took 7.7 million lb. of Japanese tobacco. Egypt takes 3 to 4 million lb. The Japanese exports to Europe also appear to be on the rise though the Japanese tobacco leaf is reported to be quite different in taste and aroma from the American leaf. It is understood that the Japanese exports of unmanufactured tobacco have been well received in Europe, particularly in Germany on account of its cleanliness and standardised quality. The latest report from Germany, however, indicates that the Japanese leaf is inferior in flavour and does not keep its colour for a sufficiently long time. During the past 2 years sales of Japanese leaf in Europe have ranged from 2 to 3 million lb. per year.

On account of the present trade policy of Japan, therefore, it appears that India's exports to Japan might still further decline.

(d) *United Kingdom.—(i) Total imports of unmanufactured tobacco.*—The United Kingdom is the world's largest single purchaser of unmanufactured tobacco, and over 35 per cent. of the exports from the United States, the largest exporting country, were absorbed in the United Kingdom during the past decade. The imports continue to rise and in 1937, she took 46.4 per cent. of the United States exports of unmanufactured tobacco. The bulk of the leaf exported from countries in the British Empire goes to the United Kingdom. The average annual imports of unmanufactured tobacco into the United Kingdom are 230 million lb. (average for the 5 years ending 1936) out of which only 49 million lb. (21.3 per cent.) are imported from the Empire countries. The average annual imports from the

United States come to 178 million lb. or 77 per cent. The average annual imports from British India come to 12 million lb. or a little less than one-fourth of the total average annual imports from all Empire countries and 5.2 per cent. of the total imports from all countries. The imports of unmanufactured tobacco into the United Kingdom during the past several years from different countries are given in Appendix XXIX.

(ii) *Preference on Empire tobaccos.*—In 1919 imports from Empire countries formed only 4 per cent. of the total imports of unmanufactured tobacco. In September, 1919, the United Kingdom accorded a preference to Empire tobacco to the extent of one-sixth of the full rate of duty which at that time represented an advantage of 1s. 4d. per lb. In 1926 a further inducement to use Empire tobacco was given by reducing further the import duty on Empire tobacco to three-fourths of the full rate of duty. This gave an advantage of 2s. $\frac{1}{2}$ d. per lb. to Empire tobaccos. In 1927 an additional duty of 8d. per lb. was imposed on all tobaccos but no alteration was made in the Empire preference which remained at 2s. $\frac{1}{2}$ d. per lb. The last increase of duty of 8d. per lb. was made in 1931 and the present rates of full and preferential duty on different types of unmanufactured and manufactured tobacco are as below :—

Rates of import duty on unmanufactured and manufactured tobacco entering the United Kingdom.

	Rates of duty per lb.		
	Full.	Preferential.	
£ s. d.	£ s. d.		
<i>Unmanufactured—</i>			
If unstripped—			
containing 10 lb. or more of moisture in every 100 lb. or weight thereof.	0 9 6	0 7 $5\frac{1}{2}$	
containing less than 10 lb. moisture in every 100 lb. or weight thereof.	0 10 6	0 8 $2\frac{7}{8}$	
If stripped—			
containing 10 lb. or more of moisture in every 100 lb. or weight thereof.	0 9 $6\frac{1}{2}$	0 7 $5\frac{7}{8}$	
containing less than 10 lb. moisture in every 100 lb. or weight thereof.	0 10 $6\frac{1}{2}$	0 8 $3\frac{1}{4}$	
<i>Manufactured, viz—</i>			
Cigars	0 18 1	0 14 $2\frac{1}{2}$	
Cigarettes	0 14 7	0 11 $5\frac{1}{2}$	
Cavendish or Negrohead	0 13 9	0 10 $9\frac{3}{8}$	
Cavendish or Negrohead in Bond ..	0 12 0	0 9 $4\frac{7}{8}$	
Other manufactured tobacco ..	0 12 0	0 9 $4\frac{7}{8}$	
Snuff containing more than 13 lb. of moisture in every 100 lb. or weight thereof.	0 11 4	0 8 $10\frac{5}{8}$	
Snuff not containing more than 13 lb. of moisture in every 100 lb. or weight thereof.	0 13 9	0 10 $9\frac{3}{8}$	

Under the Ottawa Agreement Act of 1932, these rates of duty have been stabilised for a period of 10 years from the date of the Ottawa Agreements with Empire countries (*i.e.*, until August 19, 1942).

As a result of these preferences, the imports from Empire countries increased from 14 million lb. in 1919 to 43 million lb. in 1928, with a further rise to 57 million lb. in 1937 (see Appendix XXIX). Further increase occurred in 1938 and during the 9 months, January to September 1938, the imports from Empire countries were 69 million lb. India had its share in this rise of imports from Empire countries as will be seen from the following figures :—

Imports of unmanufactured tobacco into the United Kingdom from India.

Year.	Million lb.
1919	4
1922	4
1925	8
1928	10
1931	9
1932	9
1933	13
1934	10
1935	12
1936	14
1937	19
1938 (nine months, Jan. to Sept. 1938)	30

The lower imports in 1931 and 1932 were due to trade depression. During these two years the total imports into the United Kingdom from other countries were also small. In 1934 there appears to have been a larger local demand for cigarette tobacco and hence India exported a smaller quantity as compared with her exports in 1933. The imports in 1937 were the highest recorded, but in 1938 a fresh record will be established as the imports during the first 9 months of the year, January to September 1938, were over 29.7 million lb. It is, therefore, obvious that the imports from India into the United Kingdom have increased very largely during the past 4 years.

(iii) *Demand and consumption in the United Kingdom.*—Figures of imports alone do not give a complete idea about the demand and consumption of unmanufactured tobacco in the United Kingdom. Before using for manufacture, the tobacco is kept in stock for at least two years to mature. Besides, manufacturers prefer to withdraw unmanufactured tobacco from the bonded warehouses as they require. Clearances from the bonded warehouses for home consumption therefore give a more correct idea about the demand of manufacturers. The annual average (for 5 years ending 1936) clearances of unmanufactured tobacco for home consumption are about 159 million lb. (see Appendix XXX) out of which Empire countries

constitute 41 million lb. or 25.8 per cent. The rise in the consumption of Empire tobaccos from 1919, the year when preference was first accorded, may be seen from the following figures :—

Clearances of Empire tobaccos from bond for home consumption in the United Kingdom

Year.					Thousands of lb.	Percentage to total clearances for home consumption.
1919	..	..	..	..	1,546	1·01
1922	..	..	..	..	8,412	5·82
1925	..	..	..	..	14,580	9·82
1928	..	..	..	..	26,628	16·62
1931	..	..	..	..	32,782	19·15
1932	..	..	..	..	36,970	21·68
1933	..	..	..	..	40,880	23·66
1934	..	..	..	..	40,545	22·22
1935	..	..	..	..	42,064	22·06
1936	..	..	..	..	45,588	22·66
1937	..	..	..	..	51,251	24·34

The great increase in the use of Empire tobacco between 1919 and 1932 was due to the gradual capture by the Empire countries of the pipe tobacco market. It is estimated that by about 1932 the Empire countries captured about 75 per cent. of the market for this type of tobacco. Since then there has been a further steady advance and it is now estimated that about 80 per cent. of the demand for pipe tobacco is met by Empire countries. Until recently very little of Empire tobacco was used in the manufacture of cigarettes. The "coupon system" adopted by manufacturers was at its height in 1933 and since manufacturers of "coupon" cigarettes used a certain amount of Empire tobacco to reduce their costs of manufacture as the principal types of Empire tobaccos are sold at a rate lower than that for the American, there was a sudden rise in the consumption of Empire tobacco in 1933. When coupons were abolished early in 1934 by agreement among the traders, a number of brands which had contained Empire tobacco disappeared and there was a check in the use of Empire tobacco which is shown by the 1934 figures. Since 1935, however, there has been an improvement in the consumption of Empire tobacco and from 1936 there is, for the first time, evidence that Empire tobacco is being used in the ordinary established brands of cigarettes.

Although Indian cigarette tobacco has a mild and somewhat neutral flavour, the cigarette tobacco from most other Empire countries appears to have a distinctive flavour which is different from that of the American leaf. As smokers are generally conservative in their taste, cigarettes manufactured entirely from Empire tobacco have not yet caught the fancy of British smokers. The pipe tobacco-smoker is less fastidious in his taste and the slight difference in

flavour is not so noticeable in pipe and chewing tobacco as in cigarette smoking. It was, therefore, easier for Empire tobaccos to capture about four-fifths of the British market for pipe tobacco. The prejudice against cigarettes made out of Empire tobacco, apparently still remains, and therefore it might not be desirable for manufacturers to declare openly that they use a certain quantity of Empire tobacco in their blends for the popular brands of cigarettes. When, however, where Empire tobaccos are blended with American, and no reference is made to the use of Empire tobacco, the cigarette smoker has accepted the cigarettes and as time goes on he will no doubt learn to appreciate the flavour of blends containing Indian tobacco particularly.

On the other hand, it may be pointed out that though the preference was largely responsible for the expansion of imports of Empire tobacco, some credit is no doubt due to the gradual improvement in its quality so as to approach that of the American types for which the English consumer has developed a taste. Improvement in quality has been particularly noticeable in the leaf imported from India during recent years and it is understood that this factor has enabled the British manufacturer to use it in larger quantities for blending with the American in the manufacture of some of the popular brands of cigarettes.

The average (for 5 years ending 1936) annual clearances of Indian tobacco for home consumption come to about 10 million lb. or 6.3 per cent. of the total withdrawals for consumption in the United Kingdom. The trend of consumption of Indian tobacco during the past seven years may be seen from the following figures :—

Clearances of Indian tobaccos for home consumption in the United Kingdom.

<i>Year.</i>	<i>Thousands lb.</i>
1931	9,125
1932	9,380
1933	9,487
1934	9,567
1935	9,811
1936	11,596
1937	14,363

It is evident that there has been a growing appreciation of the quality of Indian tobacco which has led to a marked increase in its consumption by British manufacturers in recent years.

(iv) *Types of unmanufactured tobacco in demand and recent advances in quality of Empire tobaccos, particularly Indian tobaccos.*—The type of unmanufactured tobacco demanded by British manufacturers is determined by the type of manufactured article demanded by consumers. The three main forms in which tobacco is consumed in the United Kingdom are cigarettes, cigars and pipe tobaccos. Apart from the rise in the total consumption of tobacco there has been an enormous difference in the relative position of the three products of manufactured tobacco consumed in Britain

during the past 30 years as will be evident from the following figures :—

Estimated annual consumption of different tobacco products in the United Kingdom.

Year.	Cigarettes.		Cigars.		Pipe tobacco.		Snuff.		Total.		
	Million lb.	Per cent.									
1907 (a)	..	23·1	26·5	3·7	4·2	59·1	67·9	1·2	1·4	87·1	100·0
1924 (b)	..	77·4	59·1	1·5	1·1	51·7	39·5	0·4	0·3	131·0	100·0
1930 (c)	..	114·0	68·7	1·2	0·7	49·7	30·0	1·0	0·6	165·9	100·0
1935 (c)	..	126·0	73·1	1·1	0·6	44·3	25·8	0·9	0·5	172·3	100·0

The enormous rise in the popularity of cigarettes and the fall in the consumption of cigars and pipe tobaccoos during the last three decades are evident. The further possibilities for developing the market for Empire tobaccoos in the United Kingdom appear to lie entirely in the type of tobacco required in the manufacture of cigarettes. The fact that about 95 per cent. of the American tobacco imported into Britain is of the Virginian flue-cured type, seems to indicate unmistakably the choice of the United Kingdom in favour of that type.

The type of leaf required in the manufacture of cigarettes is of a light colour (yellow to bright lemon) medium to good and fine in texture with the least possible damage and blemish and pleasing aroma. Detailed statistics for each of the types of unmanufactured tobacco imported into Britain are not available but since the beginning of 1934, the Annual Trade and Navigation Accounts of the United Kingdom have been recording separately imports classified by "light" and "dark", the term "light" covering flue-cured tobacco and "dark" sun and fire-cured and Burley. The following

(a) Great Britain and Ireland.

(b) Great Britain.

(c) Great Britain and Northern Ireland.

(See Imperial Economic Committee's report on tobacco, 1937.)

figures analyse the imports into Britain from the Empire countries :—

Imports of unmanufactured tobacco into the United Kingdom from Empire countries.

Year.	Light.		Dark.		Total.	
	Million. lb.	Percent- age rise (+) or fall (—) over pre- ceding year.	Million. lb.	Percent- age rise (+) or fall (—) over pre- ceding year.	Million lb.	Percent- age rise (+) or fall (—) over pre- ceding year.
1934 ..	28·8	..	18·8	..	47·6	..
1935 ..	25·9	-10·1	19·2	+2·1	45·1	-5·2
1936 ..	31·1	+20·1	21·7	+13·0	52·8	+17·1
1937 ..	33·9	+9·0	23·5	+8·3	57·4	+8·7

It is evident from these figures that on an average about 59 per cent. of the imports from the Empire countries are of the "light" type. During these four years, however, the general rise and changes between proportions of "light" and "dark" of the imports from India have been more interesting as will be evident from the following figures :—

Imports of unmanufactured tobacco into the United Kingdom from India..

Year.	Light		Dark.		Total.	
	Million lb.	Percent- age rise (+) or fall (—) over pre- ceding year.	Million lb.	Percent- age rise (+) or fall (—) over pre- ceding year.	Million lb.	Percent- age rise (+) or fall (—) over pre- ceding year.
1934 ..	4·8	..	5·0	..	9·8	..
1935 ..	5·2	+8·3	6·4	+28·0	11·6	+18·4
1936 ..	7·5	+44·2	6·2	-3·1	13·7	+18·1
1937 ..	11·6	+54·7	7·6	+22·6	19·2	+40·1

It is apparent that imports from India have risen by a larger proportion than the total Empire imports. Between 1934 and 1937 imports from India increased by about 98 per cent. as against only 20 per cent. from all the Empire countries. As compared with 1934, the imports of "light" tobaccos from India increased by 141 per cent. and those of "dark" types by 52 per cent. in 1937. On an average over half the imports from India were of the "light" type suitable for manufacture of cigarettes, though in 1937 India's proportion of "light" and "dark" was 61 per cent. and 39 per cent. respectively.

The bulk of the Indian tobacco shipped to England was, however, till recently, considered unsuitable for cigarettes and use in the manufacture of pipe tobaccos, particularly in the cheaper grades of shag. Export of high-grade cigarette leaf from India to the United Kingdom commenced particularly from the year 1934-35, since when the exports of this type of leaf are increasing and having been found suitable for the manufacture of cigarettes, British manufacturers have now begun to take a keen interest in Indian tobaccos. There is a growing volume of evidence to the effect that Indian light flue-cured tobacco, being neutral in flavour, is definitely more suitable for blending with other grades of leaf and for use in the manufacture of cigarettes and that the United Kingdom might constitute a considerable market for this neutral Indian leaf if and when sufficiently large quantities are readily available. The evidence collected by the Imperial Economic Committee in 1936-37 clearly indicates that if quality is maintained and improved, if adequate and regular supplies of high grade leaf become available, and if satisfactory marketing arrangements are devised, there are fair prospects for an expansion in India's shipments of tobacco to the United Kingdom.

Almost the only area of importance in India exporting unmanufactured tobacco to the United Kingdom is Guntur in the Madras Presidency. Evidence collected in this area indicates that since 1934-35, 90 per cent. of the exports to the United Kingdom are of the Virginia flue-cured type, the rest being Virginia sun-cured and the first grade of sun-cured country (*Natu*).

Indian flue-cured virginia tobacco is thus apparently trying to catch the fancy of British manufacturers. The United Kingdom imports on an average 230 million lb. of which the Empire contribution comes to only about 49 million lb. and India's share is about 12 million lb.

Almost all the flue-cured leaf is stripped before export from India excepting the first grade, while sun-cured country is exported unstripped except the first grade. The production of the first grade Virginia flue-cured is small, being estimated at 5 per cent. of the total, though for the year 1936-37, the proportion was estimated at about 10 per cent. The first grade *Natu* (country) tobacco forms less than 5 per cent. of the total production of country cigarette leaf. The bulk of the exported leaf is, therefore, now being stripped before despatch. The advantages of exporting stripped leaf are obvious

in view of the heavy import duty in the United Kingdom, the saving in freight on the transport of stems and the lower costs of stripping in India. Indian exporters have realised this during the past four years and figures of imports of Indian tobacco into the United Kingdom show that imports of stripped leaf are rising fast while those of unstripped leaf have largely declined as can be seen from the following table :—

Imports of Indian unmanufactured tobacco into the United Kingdom.

(Million lb.)

Year.					Strips.	Leaf.	Total.
1934	..	..	..	..	6·8	3·0	9·8
1935	..	..	..	..	8·9	2·7	11·6
1936	.	..	..	..	12·6	1·1	13·7
1937	..	..	..	..	18·1	1·1	19·2

There are therefore bright possibilities for Indian tobacco in the British market. This market, however, is most critical and if India wants to expand her trade in unmanufactured tobacco with Britain, she must not only maintain and improve the quality of her produce but assure the British manufacturers of a consistent supply of specific quality from year to year. It is well known that manufacturers of cigarettes and pipe tobaccos cannot afford to make any appreciable change in the taste and flavour of their products from year to year and if India wants them to use her tobacco in their blends, they must be assured of a consistent supply of uniform quality. It has taken this country several years to convince the manufacturers in England that she can produce Virginia flue-cured leaf of a quality as good as any produced in other parts of the British Empire and to follow this up and improve our reputation still further, it is essential that immediate steps should be taken to improve the methods of marketing, particularly with regard to the adoption of standard methods of processing, grading and packing, especially of tobacco shipped "on consignment". These subjects will be referred to in detail later.

INTER-CHAPTER TWO.

Over a thousand million pounds of tobacco are consumed annually in India. All the produce must pass through the process of manufacture except perhaps in the case of some *hookah* and chewing tobaccos. The annual consumption per head averages 2.9 lb. per annum in India and about 6.4 lb. in Burma. Incidentally it may be observed that the consumption in India approximates to that of France, and the high rate of consumption in Burma corresponds roughly with the figures of the United States and the Netherlands.

The demand for tobacco in its various forms differs from one part of the country to the other. Cigarette smoking is becoming more fashionable throughout the world and India is following the fashion.

The highest rate of consumption of cigarettes, *viz.*, fifty-four per head per annum is found in Sind and is more than 2½ times the average for the whole of India. The consumption is also high in Assam, Bombay, Baroda and Mysore, although the biggest total annual consumption is in Bengal. Other outstanding provinces apart from Bombay are the United Provinces, Bihar and Orissa, Madras and Nizam's Dominions.

The per capita consumption in Madras and the United Provinces represents only 10 cigarettes per annum. This is due to the fact that in Madras the consumption of cigars and cheroots is enormous, being 372 per head per annum, while the low rate of consumption in the United Provinces is associated with a high consumption of *hookah*, chewing and snuff tobaccos, *viz.*, 4.4 lb. per head per annum. The next largest consumption of cigars and cheroots is only 5 cigars and cheroots per head per annum found in the Nizam's Dominions.

This is closely followed by Bengal with 4. The highest consumption of *hookah*, chewing and snuff tobaccos is in the N.-W. F. P. at 6.3 lb. per capita per annum followed by the United Provinces with 4.4 lb. As regards the annual consumption of *bidis*; Sind takes the lead with 687 and Nizam's Dominions are a close second with 664 per head. The consumption of *bidis* is noticeably low in the North-West Frontier Province and the Punjab where the figure is only 1 and 5 per head per annum respectively.

Tobacco chewing is prevalent in Madras. Mysore and Travancore are also heavy consumers of chewing tobacco and large quantities of a special type (*Jaffna*) are imported annually from Ceylon into Travancore for this purpose. In Bihar, United Provinces and Bengal also chewing is popular. The use of snuff is prevalent in the North-West Frontier Province and to a certain extent in Madras and other areas.

The rate of consumption of cigars and cheroots in Burma is enormously high being 547 per head per annum.

It is important that growers should realise the special qualities required by manufacturers. Flue-cured Virginia cigarette tobacco should have a bright lemon colour and a fine silky texture with very little blemish or damage. Similar qualities are required for sun-cured cigarette tobacco but the colour in this case is not so bright. Cigar leaf should be a uniform brown colour preferably without any greenish tinge and have a good continuous burn, a strong agreeable flavour and pleasant aroma, and the leaves should be large. Similar characteristics are required in the case of cheroot leaf. *Bidi* tobacco should consist of strong thick leaves which can be broken into small pieces (*bidi* powder). The colour should be a light orange yellow and greenish in the Gujarat area, but brownish red is expected in *Nipani*.

tobacco by buyers in Sind, Rajputana, Central provinces and elsewhere. *Hookah* tobacco leaf should be broad, coarse and thick with thin viens, strong flavour, slow continuous burn and of a brown earthy colour. Thickness and good body is required in the leaf of chewing tobacco which should be reddish brown and with a good biting taste. For snuff the tobacco should be strong in flavour with a bright yellow colour and the leaf should be brittle.

It seems equally important that the manufacturers of tobacco products should realise that the quality of the various products required by individual consumers and also in different districts varies considerably. Some smokers prefer a strong flavour and others mild. This holds true in all cases whether for cigarettes, cigars, *bidis* or *hookah*.

The majority of the people in the north prefer a strong *hookah* tobacco and in the west they prefer strong *bidis* rather than milder types favoured in other parts of the country. In the south the preference is for a strong cheroot while in other parts of the country mild cigars and cheroots are preferred.

There is no particular periodicity in the consumption of tobacco products but the general tendency is for less to be smoked during the hot weather and the rains than in the cold weather. Manufacturers, however, prefer to buy most of their requirements immediately after the harvest and on this account tobacco growers are in a much more favourable position than other agricultural producers. It seems clear that the manufacturers and processors are anxious to get supplies as soon as possible after harvest mainly because the quality is better at that time and although it will improve on keeping, this can only be ensured if the subsequent processing and storage are carefully and properly done. Manufacturers, therefore, prefer to do this themselves and well over half of

the manufactured tobacco is bought up during the post-harvest months, March to July.

The general trend of tobacco consumption in India is upward; particularly in the case of cigarettes. It is difficult to say whether the growing popularity of the cigarette is adversely affecting the consumption of *hookah* tobacco. There seems no doubt however that it has affected the consumption of *bidis* and seriously reduced the use of cigars not only in this country but abroad.

In Madras for example the cigar and cheroot industry which employed about 30,000 people during its prosperous period can now hardly find work for more than 10,000. Similarly the export trade in Burma cheroots has suffered a serious set-back in recent years. This tendency is of overwhelming importance from the growers' point of view and particularly of those growers who are producing tobacco for export. Three or four years ago the United Kingdom, which is the largest buyer of Indian tobacco, bought more dark than light tobacco from this country, but the amount of light tobacco has increased rapidly in the last few years.

In the course of 5 or 6 years the imports of unmanufactured tobacco into the United Kingdom from India have more than doubled. As a result of the Preference the proportion of Empire tobacco consumed in the United Kingdom is now over 24 per cent. of the total, and has been rapidly increasing. The amount of Indian tobacco used has increased still more rapidly, which seems to show that buyers in the United Kingdom are now beginning to appreciate the good quality of Indian cigarette leaf. It is, however, essential that in those areas of this country which are considered suitable for the production of Virginia cigarette tobacco, the growers should realise the great importance of quality and continue their efforts to improve it.

It is not only a question for growers, however, since the demand in the United Kingdom is mainly for leaf

which has been properly stripped (*i.e.*, with the mid-rib removed), reconditioned, graded correctly for colour, texture, etc., and properly pressed and packed. The individual grower is not capable of undertaking the highly skilled and somewhat expensive processing involved. It is, therefore, important that exporters and owners of reconditioning plants, which have been increasing recently, should realise their responsibilities in the matter, and take every possible step to maintain and improve the character and reputation of Indian tobacco exported abroad.

The export trade with Japan presents certain difficulties and its future seems problematical since Japan itself produces and exports unmanufactured tobacco to Europe, particularly, to Germany, where it is claimed that on account of its cleanliness and standardised quality it is being well received in spite of its inferior flavour and poor keeping quality. The exports of Indian sun-cured country tobacco to Japan do not normally commence till September and producers and the trade are in this case rather at a disadvantage in so far as they are not aware of the requirements of the Japanese Tobacco Monopoly till six months after the crop has been harvested.

There is no reason why the present export of "primings or scraps" to the Netherlands should not continue and be expanded, but such tobacco should be clearly marked at the time of export to distinguish it from the high quality cigarette type. Some consideration needs to be given to Indian producers of cheroot leaf who have an export trade with Burma. In view of the decreased consumption and export of cheroots, it would be desirable for the agricultural departments concerned—particularly in Bengal—to give their immediate attention to the possibility of producing other types in those areas.

CHAPTER III.—PRICES.

A.—Introductory.

Few other agricultural products show such large range of quality as tobacco. The quality varies even in the same type, variety and season, from district to district and often from one field to another, particularly in the case of indigenous types of tobacco. There have been hitherto no recognized grades of the different qualities and it is therefore almost impossible to get any price series which will give a dependable idea about the territorial and periodical variation in prices. The fact that merchants from distant areas and even from England have to visit, either personally or through representatives, the tobacco producing areas for making direct purchases, indicates strongly that written contracts specifying requirements by calling for samples by post are not possible under the existing circumstances. It may be mentioned incidentally that due probably to these difficulties that forward contracts in any form are not current, excepting in the case of Virginia flue-cured cigarette leaf for which some buyers enter into contract with growers, for delivery of leaf of different qualities at prices specified in the contract, as will be explained later in the chapter on "Assembling". The chances of introducing a 'futures' market for this commodity appear remote. Official price quotations, available in extremely few cases, have very little commercial use in connection with trade between producing and consuming centres as they specify neither the type nor the quality. They are apparently all that can be expected under the existing trade methods and in the absence of any definite system of classification and grading of tobacco found in the market. Growers seldom keep any record of prices realised excepting possibly some of them in the *Charotar* area of Bombay Presidency, while in the case of a few big tobacco merchants who maintain accounts, it is difficult, in most cases, to trace the trend of prices backwards for more than a few years. Besides, their account books give no indication of quality and as such the prices extracted from them do not form a uniform series. In the circumstances the best that can be done is to indicate approximately, with the help of the available data, the general trend of seasonal and annual variations in prices of some of the important types of tobacco grown and sold in different parts of the country.

B.—Trend and seasonal variations in prices of cured tobacco.

(1) CIGARETTE AND PIPE TOBACCO.

(a) *Virginia flue-cured*.—(i) *Guntur*.—The average harvest prices of raw Virginia flue-cured cigarette tobacco in Guntur district

during the past eight years were as follows:

*Harvest prices of the principal Virginia cigarette tobacco at Roanoke
and the monthly buying prices of the same at this city.*

Year	Principal price		Principa l price per pound in the present year
	Price per pound at Roanoke in July	Price per pound at Roanoke in January	
1917	\$1.10	\$1.10	\$1.10
1918	1.10	1.10	1.10
1919	1.10	1.10	1.10
1920	1.10	1.10	1.10
1921	1.10	1.10	1.10
1922	1.10	1.10	1.10
1923	1.10	1.10	1.10
1924	1.10	1.10	1.10
1925	1.10	1.10	1.10
1926	1.10	1.10	1.10
1927	1.10	1.10	1.10
1928	1.10	1.10	1.10
1929	1.10	1.10	1.10
1930	1.10	1.10	1.10
1931	1.10	1.10	1.10
1932	1.10	1.10	1.10
1933	1.10	1.10	1.10
1934	1.10	1.10	1.10
1935	1.10	1.10	1.10
1936	1.10	1.10	1.10
1937	1.10	1.10	1.10

It is apparent that prices are rising rapidly after 1923, and in 1937 they are about 30 percent higher than in 1923. The leading buyer of cigarette leaf is Germany (U.S. British Leaf Tobacco Co., Inc., London, Eng.), generally purchasing the larger and premium quality grades of cigarette operation in the United States by the few large growers. The countries I mention have been mentioned previously for the first year, I mention for the second, Germany for the third, Canada for the fourth year and I name for the first, for example, steel refection. The average price paid by the first purchaser for a 100-lb. bag during the last seven years (1930, 1931, 1932, 1933, 1934, 1935, 1936) of about 6 cents per pound comes to the high peak of prices prevailing during the season.

The statement in Appendix XXXI and the diagram facing page 77 show the monthly buying prices of cigarettes as extracted from the books of the respective firms at this city. The prices are high immediately after harvest, unlike many other types of tobacco and almost all the other agricultural products. This is by far the most important factor determining quality of cigarette leaf and since it rapidly deteriorates under ordinary room conditions of storage and temperature, growers try to dispose of their produce immediately after curing. The lots offered for sale later, say about a couple of months after curing are notably of poorer quality and it is for this reason that the growers' prices of cigarette tobacco immediately after harvest appear relatively high. Sale of cured leaf commences by about the middle of January when early prices are raised for growers particularly during the past 4 years. Prices generally rule high during February to May by which time most of the growers

sell off their crop. Till the end of 1933, a few substantial growers used to hold over a small part of their crop to be sold during the latter part of the year, but realising the difficulty of storing under ordinary conditions, they now part with their produce immediately after curing.

Re-conditioning, which should be done as soon as possible after curing, and subsequent storage of cigarette leaf require special large scale equipment and facilities that are expensive and beyond the requirements of individual growers.

(ii) *Mysore*.—Virginia flue-cured leaf is being grown in the Mysore State on commercial lines only during the past 5 years and the average prices realised were as below :—

Prices of raw flue-cured Virginia cigarette tobacco at Whitefield near Bangalore.

Year.	Average price per lb.		
	Rs.	A.	P.
1933 0 5 4			
1934			
1935 0 4 2			
1936 0 5 0			
1937 0 6 0			

The area is yet small and almost all the leaf is sold off during November to January. The following figures show the prices realised for different grades during the past 3 years :—

Grade No.	1935.	1936.			1937.		
		Rs.	A.	P.	Rs.	A.	P.
I 0 9 0 0 10 0 0 10 0							
II 0 8 0 0 8 0 0 10 0							
III 0 5 0 0 6 6 0 8 0							
IV 0 5 0 0 6 6 0 8 0							
V 0 2 5 0 2 6 0 2 6							
VI 0 1 6 0 2 0 0 2 0							
Dark green 0 1 6 0 2 0 0 2 0							
Scraps 0 1 6 0 1 0 0 1 3							

(iii) *Saharanpur (U. P.)*.—The few growers who produce flue-cured leaf round about Saharanpur and Jhansi in the United Provinces, dispose of their tobacco to cigarette factories in India by private negotiations on the basis of samples of different grades. The

average prices realised for different grades during the past three years were as below :—

Prices realised for raw flue-cured Virginia cigarette leaf at Saharanpur.

(Annas per lb.)

Grade No.	1935.	1936.	1937.
I	11	9	10
II	9	7	8
III	6	5	6
IV	3	4	4

In this area too the leaf is sold off immediately after it is ready for the market, during October and November.

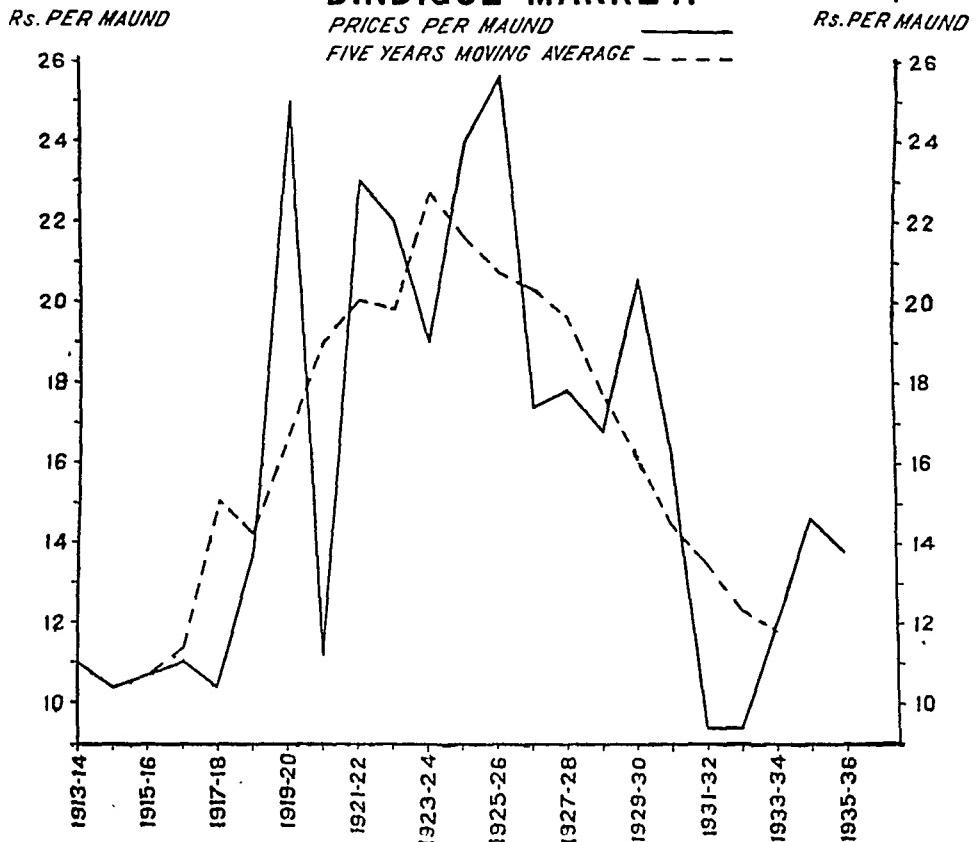
(b) *Virginia sun-cured.*—The production of Virginia sun-cured (rack-cured) is small. Although a little is done in Saharanpur and other areas, the production is mainly confined to Guntur district in Madras. The area estimated in 1934-35 was about 2,000 acres, but from 1935-36 onwards the area and quantity of Virginia leaf prepared by the rack-curing method has considerably declined due to the increasing prices prevailing for flue-cured leaf and as such sales of Virginia sun-cured leaf from 1935-36 have been small and occasional. The following figures denote the average annual prices of Virginia sun-cured leaf during the four years ending 1935 :—

Prices of Virginia sun-cured raw leaf.

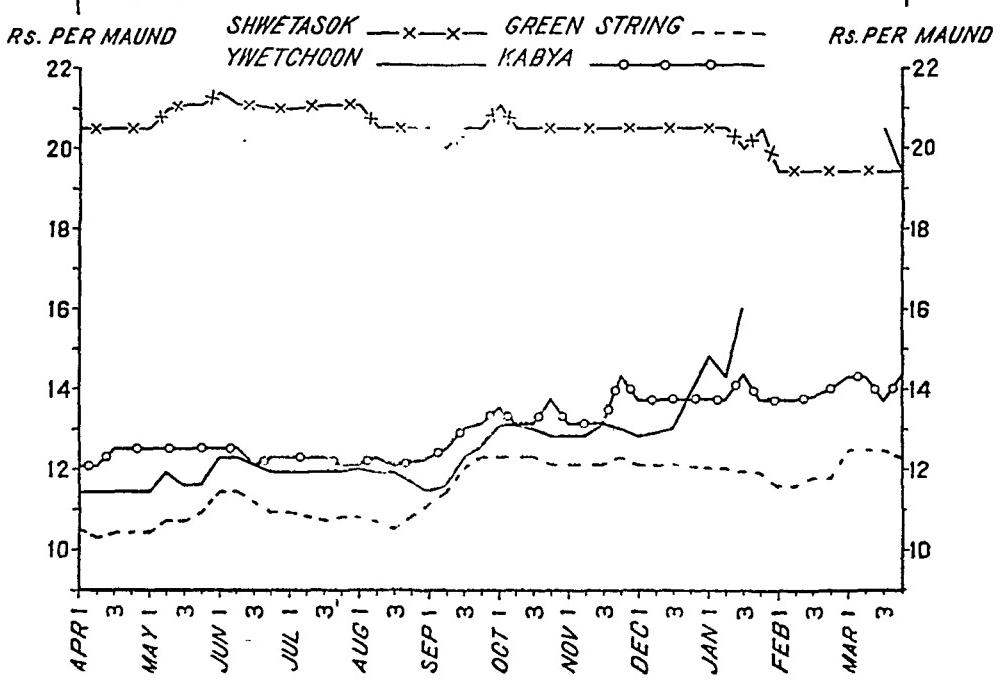
(Rupees per maund.)

Year.	Quality I.		Quality II.	
	Maximum.	Minimum.	Maximum.	Minimum.
1932	9.5	6.5	6.4	4.3
1933	6.3	3.9	3.9	1.9
1934	8.6	5.4	5.4	2.9
1935	10.0	7.0	6.6	4.4

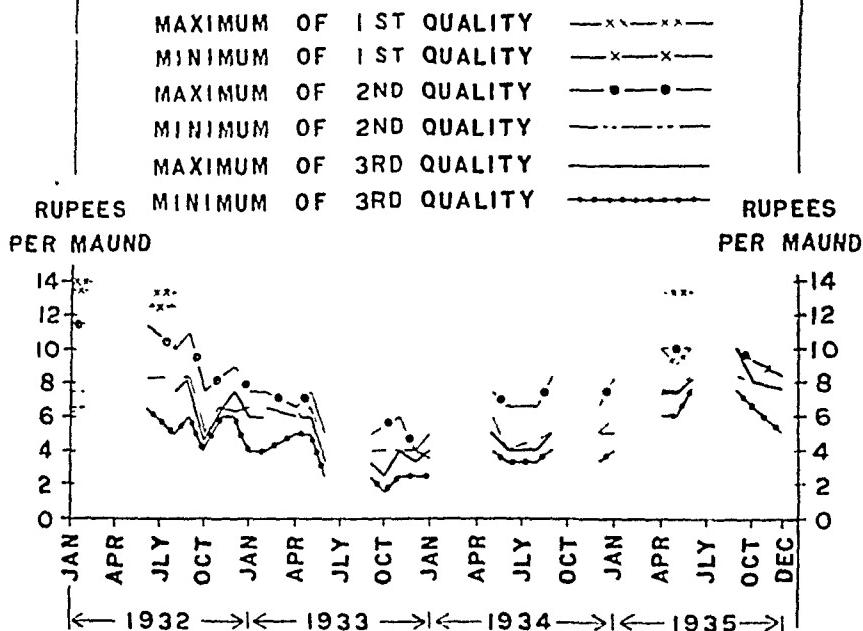
AVERAGE ANNUAL EX-FACTORY PRICES
PER MAUND OF CIGAR TOBACCO AT
DINDIGUL MARKET.



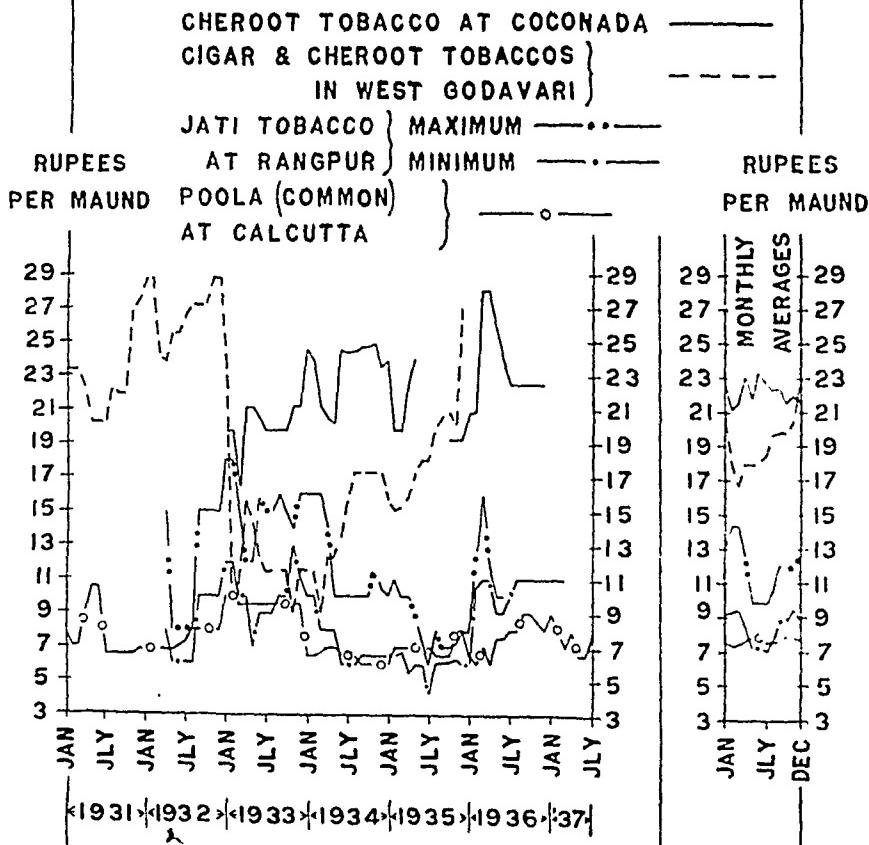
**WEEKLY WHOLESALE PRICES OF IMPORTED
JATI TOBACCO IN RANGOON IN 1935-36**



AVERAGE MONTHLY WHOLESALE PRICES
PER MAUND OF RAW COUNTRY (NATU)
TOBACCO AT GUNTUR



MONTHLY PRICES OF CIGAR AND
CHEROOT TOBACCOS



The prices thus dropped in 1933, but recovered during the next year and in 1935 were high. In 1936 and 1937 the quantity available was small.

The statement in Appendix XXXII showing the monthly prices and the diagram facing page 77 indicate that the prices rule high in April and May, i.e., immediately after harvesting and curing. In 1934, however, the prices suddenly rose from September and continued to be high till the end of the year, due to the large Japanese demand in that year.

(c) *Country tobacco*.—(i) *Guntur*.—The average annual prices of country (*Natu*) tobacco grown in Guntur district during the past 5 years were as below :—

*Prices of country (*Natu*) raw tobacco at Guntur.*

Year.	Per candy of 500 lb.	Percentage rise (+) or fall (-) over the preceding year.					
			Rs.				
1932	57	..					
1933	30	-47·4					
1934	30	..					
1935	54	+80·0					
1936	43	-20·4					
1937	50	+16·3					

Prices were thus low in 1933 and 1934 during which period the prices of Virginia flue-cured leaf also were low. In 1935 there was a sharp rise, followed by a decline in 1936. In 1937 the prices rose by about 16 per cent. over the previous year. Japan is the largest single buyer for this type of tobacco and the Japanese demand has in consequence considerable influence in the determination of its price. In 1934-35 the exports to Japan were the highest during recent years and hence there was a sudden rise in prices in 1935. In 1935-36 also Japan took a large quantity, but the prices dropped down by about 20 per cent. in 1936, due chiefly to the fall in internal demand for Virginia flue-cured leaf. In 1937 the prices recovered by over 16 per cent. on account of the general rise in prices of several types of tobacco.

Appendix XXXIII and the diagram facing this page show the monthly trend of prices. The prices are generally high in April to June, commence to fall by July, but rise again by about October-November. Shipments to Japan commence by about September and any variation in these shipments affect the prices during the latter part of the year. The prices in April to June are high as the best quality leaf is offered for sale during this period.

(ii) *Bihar*.—*Desi* tobacco grown in North Bihar used to be purchased by one firm in fairly large quantities till 1935 for the manufacture of cheap cigarettes, but from that year onwards the demand has considerably fallen and now practically reached a vanishing point. The average price paid for raw leaf ranged from Rs. 8-6-6 to Rs. 8-10-6 per standard maund or roughly 1 anna 8 pies per lb. in 1935. This fall in demand and price is said to be due to the particular earthy flavour of Bihar tobacco which does not improve even after prolonged storage and blending with other tobaccos.

(2) CIGAR AND CHEROOT TOBACCO.

(a) *Madras*.—Dindigul, Trichinopoly and Madras are the most important cigar manufacturing centres in the country. The diagram facing page 117 and the statement given in Appendix XXXIV indicate that the average annual cigar leaf prices during the post-depression years are considerably above the pre-war level. The highest prices were paid during 1925-26, but in 1931-32 and 1932-33, the prices were extremely low, even lower than the pre-war prices, due to the effects of the trade depression. There has been, however, a recovery since 1933-34. The long period average prices during the past 23 years were as follows :—

Period.	Average price per maund.				
	Rs. A. P.				
1913-14 to 1917-18	10 11 0
1918-19 to 1922-23	19 0 0
1923-24 to 1927-28	20 12 0
1928-29 to 1932-33	14 10 0
1933-34 to 1935-36	13 8 0

It can be seen, therefore, that the price level was at its height during the quinquennium ending 1927-28. The sudden drop during the next five years ending 1932-33 was due to the low prices prevailing during 1931-32 and 1932-33.

A reference to the following figures shows that the manufacturer's average annual buying wholesale prices of Trichinopoly cigar fillers have been stationary since 1931, except in the year 1935 when the price rose and nearly reached the pre-war price level. The increase in the prices in 1935 was about 25 per cent. as compared with the previous year.

Average annual prices of Trichinopoly cigar fillers at Madras.

Year.	Price per maund.				
	Rs. A. P.				
1910	10 10 0
1915	13 5 0
1920	21 2 0
1931	8 3 0
1932	8 3 0
1933	8 3 0
1934	8 3 0
1935	10 4 0

The available information shows that the highest prices were received in 1920, but from 1921 the prices declined.

At Dindigul orders are placed on samples. In some years only one price is paid, in some two or three merchants sell, each at different prices. Ordinarily, cigar tobaccos available in the market, are a combination of wrapper, binder and filler, the larger the proportion of wrappers the better being the price offered. The three kinds, *viz.*, wrapper, filler and binder are not sold separately. A commercially good type is one which serves for all uses, *viz.*, wrappers, binders and fillers, in the manufacture of cigars and cheroots. A variety like *Usikkapal* fetches better prices on account of its distinctive flavour.

The prices of the *Lankas* cheroot tobaccos during the three years 1933-35 were as follows :—

Quantity.	Price per maund.			Percentage rise (+) or fall (-) (1933-35).
	1933.	1934.	1935.	
	Rs.	Rs.	Rs.	
<i>Lankas (Baru or Long)</i>	20·0	23·5	21·5	+8
<i>Lankas (Mattasam or Medium)</i>	14·0	13·3	11·6	-17
<i>Lankas (Kurchi or Small)</i>	8·3	6·6	6·6	-20

It can thus be seen that while the prices of the first quality rose in 1934, the prices of the second and third qualities declined. The prices in 1935 were about 8 per cent. more than in 1933 for the first quality, but those of the second and third qualities declined by 17 per cent. and 20 per cent. respectively during the same period. In 1936 and 1937 the prices improved considerably as can be seen from the statement in Appendix XXXVI.

The *Mettupalayam* cheroot tobacco was selling at Rs. 16 per maund in 1934-35, Rs. 12·8-0 in 1935-36 and Rs. 14 in 1936-37 at Cannanore. Tobacco from Chebrole in Guntur district used locally for cheroots is considered to be an expensive type of tobacco as it is in great demand in Guntur district and round about because of its strength and sells at Rs. 50 to Rs. 60 per maund.

Apart from the general conditions of supply and demand, the year to year variation in prices are very largely due to variations in quality on account of seasonal factors.

Appendices XXXV and XXXVI and the diagram facing page 117 give the average monthly prices of West Godavari and *Lankas*

cigar and cheroot tobaccos. The growers' marketing period is normally from April to September, though fresh leaf begins to appear on the market in March. In the case of *Godavari* tobacco, the prices begin to fall from January till they reach their minimum in March from which time onwards the prices continue to be low till July when they begin to rise, reaching the maximum limit sometime in December. In the case of *Lankas* tobacco, the month to month variation in prices is small, the lower level is usually reached in February and March, when the new crop is about to come in the market and from October to November by which period better quality tobacco is sold away to manufacturers. Prices are generally high in April to June and from July commence to decline.

(b) *Bengal*.—The *Jati* tobacco (known to the trade as *Poola Common*, *Poola Good*, or *Bhengi*) is largely used in the manufacture of Burma cheroots.

The average prices realised for *Bhengi* tobacco grown at the Government Burirhat Farm near Rangpur during the past thirteen years were as under :—

Year.	Price per maund.	Percentage rise (+) or fall (—) over the previous year.
1924-25	10 0 0	..
1925-26	14 0 0	+40
1926-27	13 0 0	-7·0
1927-28	18 0 0	+38·5
1928-29	35 0 0	+94·4
1929-30	15 0 0	-57·1
1930-31	5 8 0	-63·3
1931-32	8 0 0	+45·5
1932-33	10 0 0	+25·0
1933-34	11 0 0	+10·0
1934-35	8 9 0	-22·2
1935-36	8 13 0	+3·0
1936-37	10 10 0	+20·6

Considering the rise and fall in prices during the past 12 years, it will be seen that a rise was recorded during 8 out of 12 years. The prices reached their maximum in 1928-29 just before the depression

commenced, but from 1929-30 the prices declined greatly reaching their minimum in 1930-31, the first year of the depression. From the next year, however, the prices recovered and in 1933-34 were double the prices prevailing in 1930-31. In 1934-35, there was a fall of 22 per cent. but from 1935-36 they have recovered and the present level of prices is slightly higher than that prevailing in 1924-25.

The statement in Appendix XXXVII shows the prices realised for the different types of cigar and cheroot tobaccos grown at the Government Burirhat Farm. It will be seen that the prices of "imported" varieties have dropped down to a greater extent than those of the local variety, *Bhengi*. Thus in 1935-36, the price of *Sumatra* variety, quality (a) was only one-eighth of the price prevailing in 1924-25. Similarly the corresponding price level of *Sumatra* (b) quality was one-seventh, of (c) quality one-fifth and of *Manila* and *Pennsylvania* one-eighth. The price of *Burmese Havana* in 1936-37 was only a tenth of the price ruling in 1924-25. These exotic varieties, however, are not grown commercially to any extent and the price quotations refer to small quantities produced experimentally on a Government Farm.

The average annual merchants' buying prices of *Jati* tobacco at Rangpur were as below :—

Average prices of Jati tobacco at Rangpur.

Year.	Price per maund.	Percentage rise (+) or fall (-) over the previous year.
		Rs. A. P.
1927 ..	18 0 0	..
1928 ..	20 0 0	+11.1
1929 ..	12 0 0	-40.0
1930 ..	8 0 0	-33.3
1931 ..	6 0 0	-25.0
1932 ..	7 0 0	+16.7
1933 ..	10 8 0	+50.0
1934 ..	7 12 0	-26.2
1935 ..	8 4 0	+ 6.4
1936 ..	10 0 0	+21.2
1937 ..	10 8 0	+ 5.0

Out of 10 years, six years recorded a rise in prices. The sudden drop in prices from 1929 compares with the figures given earlier. In 1930 to 1932 the prices were very low due to trade depression. In 1933, they recovered, followed again by a drop during the next year. From 1935, the trend appears to be definitely upwards.

The middle leaves of *Jati* tobacco are called *Poola* which is subdivided into *common* and *good* in the Calcutta market. The statement in Appendix XXXVIII and the diagram facing page 117 show the average monthly prices of *Poola* (Common) tobacco in the Calcutta market as published in the 'Calcutta Prices Current and Money Market Report' published by the Bengal Chamber of Commerce. It is the *Poola* leaf which is exported in large quantities to Burma for the manufacture of cigars and cheroots.

The statement shows that the prices declined from 1930 to 1932, recovered by about 30 per cent. in 1933, but fell again in 1934. From 1935, however, the trend of prices appears to be on the rise. The prices of *Poola* (Good) in the Calcutta market are about 8 to 12 annas per maund more than those for *Poola* (Common).

Appendix XXXIX and the diagram facing page 117 give the monthly prices of *Jati* tobacco at Rangpur during the past 5 years. The tobacco is harvested in February to April, the normal marketing season being May to October. The price level immediately after harvest is low, particularly from May to August. By September it commences to rise and reaches a high level in January and February. In 1936-37, the monthly prices were more constant and remained at Rs. 11 per maund from August to April. It appears that the month to month variations in prices are smaller in a terminal and distributing market like Calcutta than those in prices prevailing in a primary and secondary market like Rangpur (see Appendices XXXVIII and XXXIX).

(c) *Burma*.—The statement in Appendix XL shows the average monthly prices of Burmese cigar and cheroot tobaccos in three important markets in Burma as published in the *Burma Gazette*. The figures show that at Hengzada, the prices ranged from Rs. 2-14-0 per maund in 1934-35 to Rs. 4-6-0 per maund in 1932-33 and 1933-34. In 1935-36 the average annual price was Rs. 3-5-0 per maund. At Thayetmyo the average price in 1935-36 was Rs. 5 per maund as against Rs. 4-8-0 in 1931-32, Rs. 6-6-0 in 1933-34 and Rs. 6-3-0 in 1934-35. At Pakokku the average price in 1935-36 was Rs. 3-14-0 per maund as compared with Rs. 6-6-0 per maund in 1934-35, thus indicating a fall of 39 per cent. These official price quotations, however, do not specify the variety and are reported to refer to average quality produce, and as such they are of limited use in the trade.

The average annual prices of the well-known *Desi* cheroot tobaccos grown in the Shwegen area of Burma, as obtained in the

Rangoon market during the past 3 years, were as below :—

Average annual prices of Desi (Shwegyin) cheroot tobacco in Rangoon market.

(Per maund).

Quality.	1934-35.	1935-36.	1936-37.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
I	10 4 0	12 8 0	14 13 0
II	7 15 0	9 14 0	12 9 0
III	5 12 0	7 8 0	9 2 0
IV	4 9 0	6 0 0	7 9 0

Giving equal weight to the four qualities since their relative proportion is not known, the average annual price was Rs. 7-2-0 per maund in 1934-35, Rs. 8-15-6 in 1935-36 and Rs. 11 in 1936-37. Thus in 1936-37 the prices were about 54 per cent. higher than those prevailing in 1934-35.

The following figures indicate the trend of prices of different varieties of local cheroot tobacco sold in Myingyan market.

Average annual prices of different varieties of cheroot tobacco at Myingyan.

(Per maund.)

Variety.	1934-35.	1935-36.	1936-37.	Percentage fall (—) 1934-35 to 1936-37.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	
<i>Hse-gyi Ywe Yaung</i> ..	13 5 0	10 4 0	9 2 0	—31
<i>Hse-gyi Hnasa-hman</i> ..	11 11 0	8 11 0	8 0 0	—31
<i>Hse-gyi Hnasa-pu</i> ..	9 7 0	6 14 0	5 12 0	—39
<i>Hse-lat</i>	6 5 0	4 12 0	3 12 0	—40
<i>Hse-pat</i>	4 0 0	3 3 0	3 0 0	—25

It is significant to note that the prices of these varieties declined by 25 to 40 per cent. during the period 1934-35 to 1936-37 as against a rise in the Shwegyin tobaccos during the same period. It may

further be noted that while Shwegenyin tobaccos are used in the manufacture of superior cheroots, the varieties sold in Myingyan are generally used in the manufacture of cheap torch cheroots. It appears therefore that the prices of better quality tobacco are rising while those of inferior quality are declining.

The tobacco leaf imported into Burma from Rangpur and Cooch Behar in Bengal via Calcutta is known by different Burmese commercial names like *Ywetchoon*, *Shwetasok*, *Kabya* and *Green String*. *Ywetchoon* is used for making cheroots, while the remaining three are utilised in the manufacture of torch cheroots of different qualities and for chewing. In 1935-36 the average prices of these 4 commercial types in the Rangoon market were as below :—

	Per maund.		
	R.S. A. P.		
<i>Shwetasok</i> 18 5 0
<i>Kabya</i> 13 0 0
<i>Green String</i> 11 8 0
<i>Ywetchoon</i> 12 11 0

The statement in Appendix XLI shows the average weekly prices of these four varieties prevailing in the Rangoon market in 1935-36. The figures and the diagram facing page 116 indicate that in the case of *Shwetasok* the prices rule low during February and March. From April they commence to rise and reach maximum in June. In July there is a slight fall which continues till the end of September. In October there is a slight rise, but afterwards the prices continue to fluctuate within a small range of Rs. 20 to Rs. 20-8-0 per maund till the end of January. In the case of *Kabya*, April to August appears to be a period of low prices which range from Rs. 12 to Rs. 12-8-0 per maund. From the latter half of September the price commences to rise till it reaches to a level of about Rs. 14-5-0 per maund by about the end of November. In December, there is a slight fall, but on the whole the prices appear to rule high from December to the end of March. For *Green String*, April to August seems to be the period of low prices which range from Rs. 10-5-0 to Rs. 11-6-0 per maund during this period. From September the prices commence to rise and in October reach about Rs. 12-5-0 per maund. The high prices continue throughout November. From December the prices decline and reach to about Rs. 11-12-0 per maund in February. They, however, again rise in March which appears to be a month of maximum monthly prices. The prices of *Ywetchoon* continue at a low level of Rs. 11-6-0 to Rs. 12-5-0 per maund from April to the end of August. From early September there is a small rise which continues till the end of January when the price reaches to about Rs. 16 per maund. March appears to be a month of maximum prices which rule at Rs. 19-6-0 to Rs. 20-8-0 per maund.

(3) *Bidi* TOBACCO.

(a) *Bombay*.—(i) *Charotar area*.—The following figures show the annual average prices of two of the best varieties (*Lal* and *Lilvo*) of *bidi* tobacco grown in the *Charotar* area of *Bombay Gujrat*, as obtained by the growers during the past 12 years, the price figures having been extracted from the account books of several tobacco growers and village middlemen.

Prices of bidi tobacco in Kaira district.

Year.	<i>Lal.</i> (<i>Bhuko</i> or powder).			<i>Lilvo.</i> (<i>Bhuko</i> or powder).		
	Price per Md.	Percentage rise (+) or fall (-) over previous year.	Rs. A. P.	Price per Md.	Percentage rise (+) or fall (-) over previous year.	
1926	14 2 6	..	13 14 3	..	
1927	14 3 7	+ 0·5	16 15 0	+ 17·6	
1928	13 4 2	- 6·8	17 3 3	+ 1·5	
1929	11 15 5	- 9·8	14 6 1	- 16·6	
1930	7 10 11	- 26·5	10 7 8	- 27·0	
1931	10 5 7	+ 35·5	10 10 11	+ 1·9	
1932	7 11 3	- 26·8	9 8 0	- 11·7	
1933	8 13 11	+ 13·2	10 6 2	+ 9·2	
1934	10 11 9	+ 21·1	11 7 9	+ 10·8	
1935	7 11 7	- 27·9	10 5 6	- 9·8	
1936	10 8 0	+ 35·5	10 12 6	+ 4·2	
1937	12 8 4	+ 19·1	12 9 0	+ 16·3	

It is apparent that five of the 12 years recorded a fall in prices, in the case of both the varieties. The prices rose till 1928, though the prices of *Lal* recorded a fall in 1928. In 1929 there was a sudden drop of 9·8 per cent. in *Lal* and 16·6 per cent. in *Lilvo* prices. The prices further declined by about 27 per cent. during the next year, but in 1931, there was a sharp recovery of over 35 per cent. in *Lal* and 2 per cent. in *Lilvo*. In the very next year, however, there was a sharp fall to be followed again by a rise in

1933 and 1934. In 1935, there was an appreciable drop, but from 1936, the trend of prices is apparently on the rise. The severe economic depression commenced late in 1930, but it appears from the quotations given above that the depression did not have much effect in lowering the prices.

The following figures show the maximum and minimum (trade) prices of average quality *bidi* leaf and powder (average of all varieties) during the last thirteen years :—

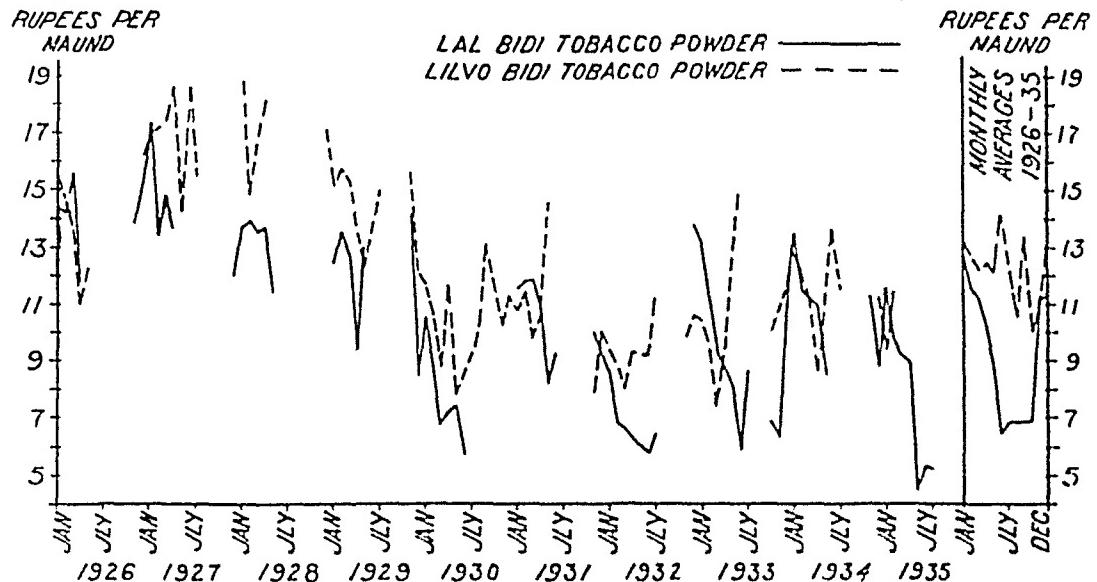
Prices of average quality bidi leaf and powder at Nadiad market.

(Per maund.)

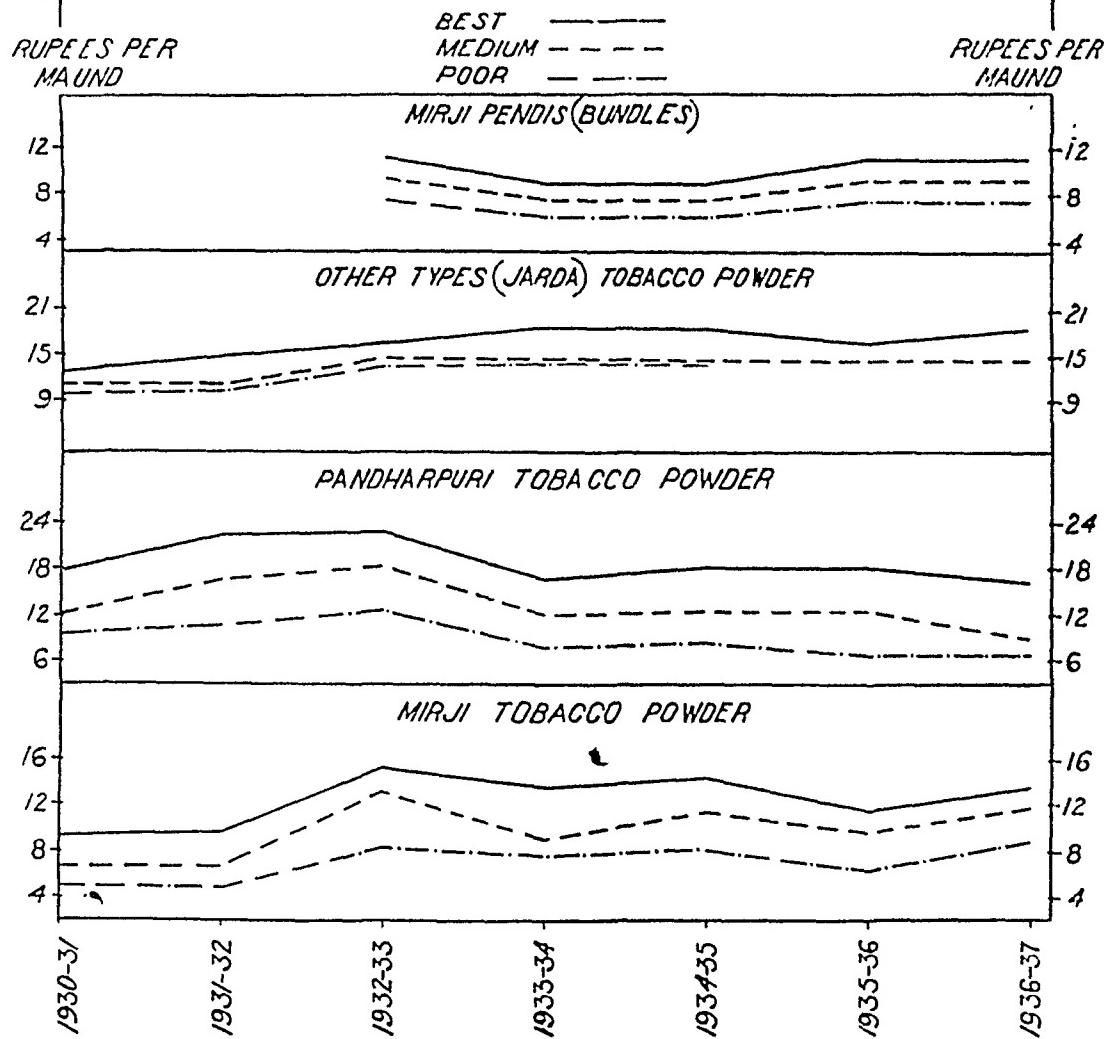
Year.	Leaf in bundles.		Powder.	
	Minimum.	Maximum.	Minimum.	Maximum.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1925	13 11 5	23 8 2	9 12 0	19 9 5
1926	13 11 5	23 8 2	9 12 0	19 9 5
1927	13 11 5	23 8 2	9 12 0	19 9 5
1928	5 14 0	11 12 1	3 14 8	7 13 5
1929	5 14 0	11 12 1	3 14 8	7 13 5
1930	7 13 5	13 11 5	5 14 0	9 12 0
1931	7 13 5	13 11 5	5 14 0	9 12 0
1932	5 14 0	11 12 1	3 14 8	7 13 5
1933	7 13 5	13 11 5	7 13 5	11 12 1
1934	5 14 0	11 12 1	3 14 8	7 13 5
1935	3 14 8	9 12 0	1 7 6	9 12 0
1936	5 14 0	11 12 1	3 14 8	9 12 0
1937	5 14 0	11 12 1	5 14 0	11 12 1

These price quotations do not specify the variety nor the quality and as such are of very limited use. They, however, support the contention that the present economic depression has had very little effect, if any, on the price fluctuations of *bidi* tobacco in the *Charotar* area and that the existing prices are slightly higher than those prevailing during the two pre-depression years, 1928 and 1929. In fact during the first years of the depression, 1930 and 1931, the prices were higher than those in the pre-depression year. The trend of prices is on the rise from 1936.

AVERAGE MONTHLY PRICES OF LAL & LILVO BIDI TOBACCO POWDERS IN THE CHAROTAR AREA OF BOMBAY GUJRAT



AVERAGE ANNUAL PRICES OF BIDI TOBACCO AT SANGLI MARKET



The following figures show the average annual prices realised by growers for inferior *bidi* tobaccos :—

(Per maund).

	Year.	<i>Khakari.</i>	<i>Galia.</i>	<i>Khutan.</i>
			Rs. A. P.	Rs. A. P.
1926	4 2 6	5 15 1	7 10 11
1927	5 0 5	7 3 2	7 10 9
1928	5 14 10	9 12 10
1929	3 7 2	5 7 2	6 9 4
1930	1 8 2	4 1 10	4 8 5
1931	2 1 9	4 1 10	5 5 11
1932	2 1 9	4 3 6	4 11 3
1933	2 11 7	3 12 0	5 2 4
1934	3 0 6	..	5 11 11
1935	2 0 11	4 7 0	3 9 0
1936	2 5 0	4 15 0	3 13 0
1937	2 12 6	5 14 0	4 9 6

These prices indicate the same general trend as was observed in the case of *Lal* and *Lilvo* tobaccos, except for the more precipitate decline in the prices of *Khakari* in 1930.

In general, there are six classes of *bidi* tobacco recognised by the trade in the Charotar area, viz., *Lal*, *Lilvo*, *Galia*, *Khutan*, *Khakari* and *Bandhan*. The last term means bundle and *Bandhan* is always sold in leaf tied into bundles. The remaining classes represent powdered tobacco obtained from leaves from the different parts of the tobacco plant as well as from the ratoon crop. *Khakari* is the cheapest material, *Galia* fetching a little better than *Khakari*. Highest prices are realised for *Lal* and *Lilvo*, whereas better types of *Khutan* fetch higher prices than the lower qualities of *Lal* and *Lilvo*.

The statements in Appendices XLII and XLIII and the diagram facing this page give the average monthly prices of *Lal* and *Lilvo* *bidi* tobaccos during the ten years 1926 to 1935. In the case of *Lal* tobacco which is by far the most important class of *bidi* tobacco accounting for a little more than two-thirds of the total production in this area, the peak of monthly prices is generally reached in the month of January by which time the best

qualities of tobacco are sold by the growers (see diagram facing page 127). There is a slight but progressive decline from February which continues till the end of May. June to October is a period of low prices. By about the end of October the prices commence to rise till they reach the maximum in January. The *Lilvo* tobacco which forms less than 4 per cent. of the total production, shows a slightly different tendency of monthly variation of prices. In this case high prices appear to rule in June, and again in December and January, though the number of transactions between June to October are few and far between. The prices commence rising early in November when the old stocks held over by substantial growers begin to be offered for sale and the rising trend continues till January. From February to May the prices decline by about 3 to 5 per cent.

(ii) *Nipani area*.—The prices of *bidi* tobacco (*Hatpan* and *Jarda*) at Nipani during the past 10 years were as below :—

(Per maund).

Year.	Best quality.			Medium quality.			Poor quality.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
1927-28	33	6	9	25	11	4
1928-29	34	11	4	26	15	11
1929-30	35	15	11	26	15	11
1930-31	25	11	4	18	0	0
1931-32	23	2	3	18	0	0
1932-33	26	15	11	23	2	3
1933-34	23	2	3	18	0	0
1934-35	23	2	3	18	0	0
1935-36	25	11	4	18	0	0
1936-37	28	4	6	20	9	0

It is apparent that the prices continued to rise till 1929-30. During the next year, 1930-31, there was a sharp decline of about 30 to 33 per cent. There was a further fall in 1931-32, to be followed by a rise of 10 to 30 per cent. during the next year. The years 1933-34 and 1934-35 again recorded low prices, but from 1935-36, the trend appears to be on the rise. The price secured in 1936-37 were the highest since 1929-30.

The statement in Appendix XLIV and the diagram facing page 127 show the annual average prices of different classes of *bidi* tobacco sold in the Sangli market in the Nipani area. Taking only the best

qualities into consideration the prices were as below during the last seven years.

*Prices of best quality bidi tobacco in the Sangli market.
(Per maund).*

Year.	Mirji powder.	Pandharpuri powder.	Other types of powder (Jarda).	Mirji leaf bundles (Pendis).
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1930-31	9 2 10	17 9 10	12 13 6	..
1931-32	9 8 8	22 6 2	14 10 11	..
1932-33	15 0 9	22 12 1	16 8 3	11 0 2
1933-34	13 3 6	16 14 1	18 5 7	8 12 11
1934-35	13 15 2	18 5 7	18 5 7	8 12 11
1935-36	11 0 2	18 5 7	16 8 3	11 0 2
1936-37	12 13 6	16 8 3	18 5 7	11 0 2

The *Pandharpuri* tobacco belongs to the *Nicotiana rustica* species and is noted to contain a high percentage of nicotine. On account of high strength, it fetches a high price among manufacturers of *bidis* who use it for blending with other classes of tobacco for making *bidis* of different strength. The demand is, however, limited for this class. The other classes belong to *Nicotiana Tabacum* species. The *Jarda* tobacco which forms more than two-thirds of the total production in the *Nipani* area fetches prices which are sometimes higher than those obtained for *Pandharpuri* and its price-level is always much higher than that of the best classes of *Gujrati bidi* tobaccos, viz., *Lal* and *Lilvo*. Even the prices of *Mirji* tobacco, which is one of the cheaper classes available in the *Nipani* area, are higher than those of any of the six trade classes produced in *Gujrat*.

The figures given above show that the prices in the Sangli market continued to rise from 1930-31 to 1932-33. In 1933-34 there was a sharp fall in the case of *Mirji* (both bundles and powder) and *Pandharpuri* as against a rise in the case of *Jarda*. In 1934-35, the prices of *Mirji* powder and *Pandharpuri* recovered, but those of *Jarda* and *Mirji* bundles remained at the same level as in 1933-34. In 1935-36, the prices of *Mirji* powder and *Jarda* declined, while those of *Pandharpuri* bundles remained constant and of *Mirji* rose. In 1936-37 the prices were generally higher than those in the previous year, except in the case of *Pandharpuri* which recorded a fall.

With regard to the seasonal variation in prices, it may be stated that at the commencement of the season in January, the prices are better, but afterwards there is a gradual downward trend till the end of May. Afterwards on account of the advent of early

monsoon there are practically no transactions till about the end of October. The season opens again in November and, on the whole, it appears, that the prices rule at a slightly higher level in November and December than during the months of April and May. It may be, however, noted that the higher level of prices ruling in November and December is almost entirely due to improvement in the smoking quality of tobacco after some months' storage after harvest, as will be explained later in the chapter on "Storage and stocks", and not due to any increase in demand. The statements in Appendices XLV and XLVI show the daily and weekly maximum and minimum prices of *Jarda bidi* tobacco as extracted from merchants' books at Jayasengpur in the Nipani area. The statement of daily prices shows that the daily maximum prices oscillate more than the minimum prices, that very sudden rises or falls of prices from day to day are not common and that both the maximum and minimum prices show a tendency of gradual decline from February to the end of April.

(b) *Baroda*.—The following are the average prices per maund of *Jardo Bhuko* (*bidi* powder) in Baroda during the past nine years :—

Year.	Price per maund.					
	Rs. A. P.					
1928-29	14	14	0			
1929-30	10	0	0			
1930-31	9	8	0			
1931-32	8	0	0			
1932-33	8	0	0			
1933-34	9	12	0			
1934-35	9	0	0			
1935-36	9	12	0			
1936-37	10	2	0			

It is evident that the prices declined from 1928-29 to 1932-33. In 1933-34, there was a rise of 22 per cent. In the next year there was a small decline but from that year, viz., 1934-35 the trend appears to be again on the rise.

The following figures show the prices realised for *Jardo Judi* (*bidi* leaf in bundles) by three growers from a village in Baroda State :—

The prices of Jardo Judi realised by growers.

(Per maund).

Year.					Grower No. I.	Grower No. II.	Grower No. III.
					Rs. A. P.	Rs. A. P.	Rs. A. P.
1931-32	12	0	0		10	0	0
1932-33	11	4	0		10	4	0
1933-34	10	12	0		9	8	0
1934-35	12	0	0		12	8	0
1935-36	13	4	0		11	8	0

It was reported that all the three growers produced the same variety on the same type of soil and sold their produce practically at the same time and yet the prices realised by them were different from each other. The price realised by individual growers depends not only on the quality (which often varies in this area from field to field) and with the care taken in cultivation and preparation, but also on the personal factors of the individual growers, and his ability to secure the full market price.

(c) *Central Provinces and Berar*.—The Central Provinces and Berar is the most important province for manufacturing *bidis* and imports large quantities of *bidi* tobacco powder from the *Charotar* (Gujrat) and Nipani areas of the Bombay Presidency. Before it is sold to manufacturers of *bidis*, the tobacco undergoes considerable processing in the form of preparation of different quality mixtures based on colour and strength. The wholesale merchants in the two Bombay areas have regular processing factories where the *bidi* tobacco is sieved, sorted and blended to form different quality mixtures. Each of these mixtures is given its own number, which varies from one wholesale merchant to another. The prices of some of these qualities which are designated by numbers at Gondia, an important *bidi* manufacturing centre in the Central Provinces, were as below :—

Prices of bidi tobacco mixtures at Gondia.

(Per maund).

Year.	No. 80.	No. 328.	No. 151.	No. 523.	Akol.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1931	26 0 0	30 0 0	18 0 0	..	44 0 0
1932	29 5 0	37 5 0	16 0 0	26 4 0	35 0 0
1933	27 0 0	33 11 0	20 0 0	..	32 0 0
1934	23 4 0	36 4 0	22 4 0	24 8 0	..
1935 .. ..	..	31 0 0	16 0 0	21 0 0	34 4 0

(d) *Nizam's Dominions*.—The annual average prices at Hyderabad of imported Nipani, Pandharpuri, Mirji and Akol varieties of *bidi* tobacco mixtures were as shown below :—

(Price per maund).

Year.	Nipani tobacco.	Pandharpuri tobacco.	Mirji tobacco.	Akol tobacco.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1932-33	26 0 0	22 0 0	16 0 0	12 10 0
1933-34	21 0 0	17 0 0	11 8 0	7 12 0
1934-35	24 8 0	20 0 0	15 0 0	11 8 0
1935-36	20 0 0	16 0 0	11 0 0	7 11 0

The prices of *Nipani*, *Pandharpuri*, *Mirji* and *Akol bidi* powders fell in 1933-34 and increased in 1934-35 and again declined in 1935-36. The rise and fall in the prices per maund appear to have been about the same in all the four cases being higher proportionately over the cheaper types.

The statement in Appendix XLVII shows the monthly prices of locally grown tobaccos in Hyderabad Deccan. It will be seen that the prices of the locally grown *Jarda* tobacco declined in 1932-33 as compared to 1931-32 prices. In 1933-34, there was a further decline, but in 1934-35 there was a sharp recovery of over 30 per cent. The fluctuations in the prices of locally grown *Desi* tobacco showed the same tendencies. There are wide oscillations in the prices from one month to another. In the case of *Desi* tobacco the prices appear to be high in January and low in April and May.

The statement in Appendix XLVIII gives weekly prices of different qualities of *Jarda* tobacco in Hyderabad (Dn.) during 1934-35.

(4) *Hookah* TOBACCO.

(a) *Bengal*.—The following figures indicate the average annual prices of *Jati* and *Motihari* varieties of *hookah* tobacco in North Bengal :—

Year.	Price per maund.			Percentage rise (+) or fall (-) over the preceding year.
	Rs.	A.	P.	
1927	18	12	9	..
1928	23	8	0	+25.3
1929	27	9	11	+17.5
1930	14	3	7	-48.7
1931	8	1	4	-43.2
1932	9	9	8	+19.4
1933	12	8	7	+30.0
1934	9	8	2	-24.0
1935	7	7	5	-21.8
1936	8	0	5	+ 7.5

These prices refer to average quality *Jati* (*Nicotiana Tabacum*) and *Motihari* (*Nicotiana rustica*) used mainly for *hookah*, though the former is partly used for chewing and cheroot making. The prices thus rose upto 1929, but in 1930, there was a sudden drop and by 1931, the prices were less than one-third the prices prevailing in 1929. By 1933, however, there was a recovery of 50 per cent. over

the 1931 prices but in 1934 and 1935, there was again a sharp fall. In 1936, the prices recovered by about 8 per cent.

The well-known variety *Motihari* is almost entirely used for *hookah* and on account of its strength is largely in demand all over Bengal, Assam, Bihar and other areas. The following were the average annual prices of *Motihari hookah* tobacco at Patgram in the Jalpaiguri district of North Bengal :—

Prices of Motihari tobacco at Patgram.

Year.	Price per maund.	Percentage rise (+) or fall (—) over previous year.		
		Rs. a. p.		
1928 ..	31 5 4			..
1929 ..	18 10 8			—40·3
1930 ..	16 5 4			—12·8
1931 ..	16 1 4			— 1·5
1932 ..	13 10 8			—14·8
1933 ..	12 10 8			— 7·3
1934 ..	9 4 0			—29·1
1935 ..	6 4 0			—33·4
1936 ..	9 2 0			+52·0
1937 ..	11 8 0			+26·0

There has thus been a sharp and continuous decline in prices from 1928 to 1935, when the prices were only about a fifth of those prevailing in 1928. In 1936, there was a sudden recovery of 52 per cent. and in 1937, the prices further rose by 26 per cent. but still remained far below the 1928 level.

The following were the prices realised for *Motihari* tobacco grown at the Burirhat Government Farm near Rangpur during the past 13 years :—

Year.	Prices realised for <i>Motihari</i> tobacco.		
	Rs. a. p.		
1924-25 ..	10 0 0		
1925-26 ..	14 0 0		
1926-27 ..	12 0 0		
1927-28 ..	20 0 0		
1928-29 ..	Crop failed.		
1929-30 ..	12 0 0		
1930-31 ..	5 0 0		
1931-32 ..	8 0 0		
1932-33 ..	10 0 0		
1933-34 ..	9 0 0		
1934-35 ..	No sales.		
1935-36 ..	11 8 0		
1936-37 ..	No sales.		

It will be seen that there is considerable difference between these prices and those obtaining at Patgram given in the previous table. This is due to differences in quality of the produce sold at the two places, but it is impossible to explain the extent of variation in prices due to quality differences in the absence of any specific definition of quality of the produce sold from year to year.

It appears, however, that the prices realised at Burirhat (Rangpur) were on the whole lower than those prevailing at Patgram at least till the year 1933. In 1930-31, the prices at Burirhat suddenly dropped down to Rs. 5 per maund from Rs. 12 per maund in 1929-30. At Patgram the sharp decline in prices was noticed earlier, i.e., in 1929. In 1935-36, the prices at Burirhat recovered to Rs. 11-8-0 per maund and compared better with Rs. 9-2-0 per maund prevailing at Patgram in 1936.

The *Bishpat* (sand leaves) of both the *Jati* and *Motihari* is also used for making *hookah* of mild strength, a small quantity being also purchased by cigarette manufacturers for manufacturing cheap cigarettes. The annual average prices of *Bishpat* leaf at Matha Bhanga in Cooch Behar State during the past 5 years were as below :—

Prices of Bishpat leaf at Matha Bhanga.

Year.		Price per maund.			
		Rs. a. p.			
1933	2	8	0
1934	2	0	0
1935	1	0	0
1936	2	0	0
1937	3	12	0

The trend of prices of *Bishpat* is thus on the rise during the past two years.

The statements in Appendices XLIX and L show the average monthly wholesale prices of *Motihari* at Patgram and *Jati* prevailing in the Cooch Behar State. The Cooch Behar State Gazette publishes fortnightly prices of tobacco for the several markets within the state limits and the statement in Appendix L shows the prices as averaged from quotations published for eighteen markets. These statements show that the monthly prices commence declining by about February when the prospects of the new crop are known and during the marketing period of the fresh crop, April to July rule low (see diagram facing page 126). By about August the prices usually commence rising till they reach the maximum during the months of December and January.

(b) Bihar.—The statement in Appendix LI gives the average annual, harvest prices during the past 25 years, as officially recorded in the Season and Crop Reports of the province, in the three most important tobacco producing districts, Muzaffarpur, Darbhanga and Purnea, which together account for over four-fifths of the tobacco

area in Bihar and Orissa. The varieties and qualities for which the prices have been recorded are not specified, but it may be generally stated that the prices in Muzzaffarpur refer to *Desi* (*N. Tabacum*), those in Darbhanga relate to a mixture of *Desi* and *Vilayati* (*N. rustica*) while the Purnea district prices refer almost entirely to *Vilayati* (*N. rustica*) which is mostly used as *hookah*. The *Desi* tobacco is used partly for chewing and partly for *hookah*.

The long period averages of the prices prevailing in the three districts indicate the following position :—

Average prices in Muzzaffarpur, Darbhanga and Purnea districts.
(Per maund).

Period.	Muzzaffarpur.	Darbhanga.	Purnea.
	Rs. a. p.	Rs. a. p.	Rs. a. p.
1912-14	18 3 0	8 10 0	8 8 0
1914-15 to 1918-19	19 10 0	9 15 0	6 5 0
1919-20 to 1923-24	32 12 0	13 7 0	8 13 0
1924-25 to 1929-30	16 11 0	14 0 0	11 7 0
1930-31 to 1934-35	13 10 0	9 13 0	5 11 0
1935-37	15 2 0	11 11 0	3 14 0

It is apparent that in Muzzaffarpur highest prices were obtained during the post-war period, 1919 to 1923, since when there has been a fall. During the 5 years ending 1934 the average prices were about 27 per cent. lower as compared with the quinquennial average ending 1929. Darbhanga and Purnea recorded highest prices during the pre-depression quinquennium, 1924—29. During the five years ending 1934, the prices in Darbhanga and Purnea fell by about 30 per cent. and 50 per cent. respectively. In 1935-36 the prices rose in Muzaffarpur and Darbhanga, but recorded a fall in Purnea.

(c) *United Provinces*.—The following figures show the annual average prices in the Lucknow market of the different varieties of *hookah* tobacco grown in the provinces.

Annual average prices at Lucknow.

(Per maund).

Year.	Kampilla (Farrukhabad).	Desi. (Biswan).	Desi. (Bahraich).
	Rs. a. p.	Rs. a. p.	Rs. a. p.
1930-31	8 8 8	7 14 5	7 4 0
1931-32	10 10 10	8 8 8	8 2 0
1932-33	11 15 4	8 2 0	6 0 0
1933-34	9 2 11	7 4 0	6 6 6
1934-35	8 15 6	11 2 0	6 10 0
1935-36	9 13 2	9 6 3	8 2 0

These figures do not indicate any definite trend. The prices of *Kampilla* ranged from Rs. 8-8-8 to Rs. 11-15-4 per maund, while those of *Desi* varied between Rs. 6 to Rs. 11-2-0 during the period. In 1935-36, the level of prices was generally higher than in the previous two years.

The following were the prices of *Vilayati* tobacco imported from Bihar at Lucknow :—

Prices of imported Vilayati tobacco at Lucknow.
(Per maund).

	Year.						Prices. Rs. a. p.
	1930-31	1931-32	1932-33	1933-34	1934-35	1935-36	
..	5 2 0
..	6 6 6
..	5 9 0
..	6 0 0
..	6 13 3
..	6 0 0

The annual average prices of *Farrukhabadi* tobacco in the important markets were as below :—

(Per maund).

	Year.	Cawnpore.	Lucknow.	Jhansi.			
					Rs. a. p.	Rs. a. p.	Rs. a. p.
1931-32	10 8 0	9 12 0	11 0 0
1932-33	10 0 0	11 12 0	12 0 0
1933-34	9 8 0	9 12 0	10 0 0
1934-35	10 0 0	10 8 0	11 0 0

The prices of *hookah* tobacco are determined by the amount of pungency and strength present in the tobacco. For this reason the type of tobacco grown in places where well water or the soil has large quantities of available nitrates apparently commands a better price. Thus it is reported that the tobacco grown at Kampil (Farrukhabad district) is very pungent and strong and fetches a much higher price.

than the same variety (*Calcuttia*) grown in other villages of the same district.

Prices of Calcuttia tobacco produced in Kampil and other places in Farrukhabad district.

(Per maund).

Year.	Kampil.	Other places.
1932	Rs. 9 to Rs. 15 ..	Rs. 5 to Rs. 7.
1933	Rs. 8-8 to Rs. 18-8 ..	Rs. 3-8 to Rs. 7-4.
1934	Rs. 7 to Rs. 15 ..	Rs. 3-8 to Rs. 7-14.
1935	Rs. 8 to Rs. 16-8 ..	Rs. 4 to Rs. 8-8.

Another example of price variation due to pungency and strength may be taken from Jaunpur where it is reported that the well water is brackish and ample supply of nitrates is available in the form of *lona mitti* (Salt Petre) on account of Jaunpur being an old city. In 1935 for instance, the prices of *Calcuttia* tobacco produced in certain fields fetched from Rs. 24 to Rs. 26 per maund. Tobacco produced in other fields fetched Rs. 15 to Rs. 16 per maund, while there were fields, the produce of which could be sold only at Rs. 4 to Rs. 6 per maund.

The statements in Appendices LII and LIII give the average monthly wholesale prices prevailing at Cawnpore during the past seven years for the *Farrukhabadi Kampilla* and *Desi* tobaccos imported from Bachhor, Dyer and Saresh in Bihar.

(d) *Punjab*.—The annual average harvest prices of *hookah* tobacco produced in the Punjab during the past 8 years were as follows :—

Year.	Price per maund.	Index number.
Rs. a. p.		
1929-30	10 0 0	100
1930-31	7 3 0	72
1931-32	6 15 0	69
1932-33	5 15 0	59
1933-34	5 15 0	59
1934-35	6 14 0	69
1935-36	6 7 0	64
1936-37	6 7 0	64

During this period the prices were highest in 1929-30. Subsequently there was a downward trend till in 1932-33, when the prices reached the lowest level of Rs. 5-15-0 per maund. In 1933-34, they remained stationary but in 1934-35 recovered and rose to Rs. 6-14-0 per maund. In 1935-36, there was again a slight decline and the price remained at the same level in 1936-37.

The average harvest prices of the two main varieties, *Gobhi* (*Nicotiana Rusticā*) and *Desi* (*Nicotiana Tabacum*) grown in the chief tobacco producing districts of the province were as below :--

(Per maund).

Year.	Attock. (<i>Gobhi</i>). Rs. a. p.	Hoshiarpur. (<i>Gobhi</i>). Rs. a. p.	Jullundur. (<i>Desi</i>). Rs. a. p.	Ludhiana. (<i>Desi</i>). Rs. a. p.
1930-31	5 0 0	4 2 0	5 11 0	5 11 0
1931-32	2 15 0	3 13 0	5 5 0	4 0 0
1932-33	5 11 0	2 11 0	5 0 0	4 0 0
1933-34	4 8 0	3 4 0	5 0 0	2 14 0
1934-35	5 0 0	3 0 0	5 0 0	3 10 0
1935-36	7 0 0	3 0 0	5 8 0	3 10 0
1936-37	6 0 0	4 4 0	5 4 0	3 6 0

It will be observed that the *Gobhi* tobacco grown in Attock sells on an average about Rs. 1-4-0 per maund dearer than that grown in Hoshiarpur. This is said to be due to the greater suitability of soil and other conditions in Attock district which turn out tobacco of better quality than that produced in Hoshiarpur. The same explanation is given for the higher prices realised for *Desi* tobacco grown in Jullunder than that produced in Ludhiana.

The statement in Appendix LIV gives the average monthly wholesale prices at Ferozepur and Lyallpur. A consideration of monthly variation in prices indicates that on the whole the prices are at their lowest in August and September and low during the subsequent two months, October and November. This is due to the fact that the arrivals of new tobacco crop in large quantities generally occurs in August-September and in fair amounts in the subsequent two or three months. High prices rule in April to June and sometimes in July, the period being the tail end of the season. The prices at Lyallpur have been higher than those prevailing at Ferozepur (except from September 1934 to June 1935 and again from June 1936 to March 1937), the average difference being about Rs. 1-8-0 per maund. This difference is apparently due to the differences in the qualities of tobacco sold in the two markets.

(5) CHEWING TOBACCO.

(a) *Bengal*.—The best middle leaves of *Jati* and *Motihari*, with orange brown colour, thick texture and pungent taste are used for chewing. These leaves are locally known as *Panapat* or *Bhog* or *Muk-khow*. The prices of *Panapat* leaves at Matha Bhanga market during the past 5 years were as below :—

Year.				Price of <i>Panapat</i> per maund.
				Rs.
1933	..	..	..	20
1934	..	..	..	17
1935	..	..	..	10
1936	..	..	..	17
1937	..	..	..	24

The prices thus declined till 1935, but in 1936 there was sudden jump of 70 per cent. In 1937, there was a further rise of about 41 per cent. and the prices realised were the highest since 1933.

(b) *Bihar*.—The *Desi* tobacco grown in North Bihar is very largely used for chewing, particularly the middle leaves (*Murhan*), bottom leaves (*Chhabua*) and leaves of ratooned crop which are called *Danji*. The statement in Appendix LV shows the average monthly wholesale prices of these three classes of leaves at Barh in North Bihar. During the months of October and March, the prices during the past 5 years were as below :—

(Per maund).

			<i>Murhan.</i>	<i>Chhabua.</i>	<i>Danji.</i>
			Rs. a. p.	Rs. a. p.	Rs. a. p.
October	1931	..	15 0 0	5 12 0	2 4 0
	1932	..	11 0 0	3 8 0	0 14 0
	1933	..	7 0 0	2 4 0	0 8 0
	1934	..	10 0 0	4 4 0	2 0 0
	1935	..	13 0 0	4 8 0	0 14 0
Percentage fall, October 1931 to 1935.			13%	22%	61%
March	1932	..	11 0 0	5 0 0	1 6 0
	1933	..	9 8 0	2 12 0	0 11 0
	1934	..	5 12 0	2 4 0	0 10 6
	1935	..	11 0 0	3 12 0	1 2 0
	1936	..	7 0 0	3 12 0	0 12 0
Percentage fall, March 1932 to 1936			36%	25%	45%

It is evident that the prices do not indicate any definite trend, but in 1935-36 they were considerably lower than in 1931-32. It is significant to note that prices in March when fresh crop arrives in the market in large quantities are lower than those prevailing in October, the average difference during the period of five years being 21 per cent. for *Murhan*, 13 per cent. for *Chhabua* and 30 per cent. in the case of *Donji*.

(c) *Madras*.—The following were the average prices of *Meenampalayam* chewing tobacco at Satyamangalam in Coimbatore district during the past five years :—

Prices of Meenampalayam tobacco.

(Per maund).

				First Quality.	Second Quality.
				Rs. a. p.	Rs. a. p.
July 1933	..	..	..	41 3 0	21 6 0
" 1934	..	..	..	42 10 0	23 0 0
" 1935	..	..	..	50 15 0	26 5 0
" 1936	..	..	..	42 10 0	21 6 0
" 1937	..	..	..	46 10 0	24 10 0

The description of the first and second qualities is neither defined nor specific and as such the first or second qualities of one year or month are usually not the same as the first or second qualities of another year or month. But taking into consideration the general trend it is obvious that the prices rose from 1933 to 1935 by about 23 per cent. in the case of both the qualities. In 1936 there was a sudden drop but in 1937 there was again a recovery.

The statement in Appendix LVI shows the monthly wholesale prices of *Meenampalayam* and *Udumalpet* chewing tobacco in Palghat market during the past seven years. These monthly prices indicate that the month to month variation is small and that the prices are usually highest during the month of April when the fresh crop arrives in the market in large quantities. The usual harvesting period is January-February the crop coming in the market from March to May. The best quality produce is sold off during this period and it is for this reason that the prices slowly drop down as the season advances till they reach their lowest level some time in the month of February.

(d) *United Provinces*.—The *Desi* tobacco grown round Biswan in Sitapur district is considered particularly suitable for chewing,

though it is also used to some extent for *hookah*. The average annual wholesale prices of *Desi* tobacco at Biswan were as follows :—

Price per maund.

Year.	Minimum.	Maximum.
	Rs. a. p.	Rs. a. p.
1929	7 6 6	19 0 0
1930	4 14 6	18 8 0
1931	5 14 9	17 0 0
1932	5 14 9	11 13 6
1933	5 14 9	11 13 6
1934	4 7 0	14 13 0
1935	1 8 0	14 13 0

The minimum price was extremely low in 1935 because a large part of the crop was spoilt in that year by hail and frost. The maximum prices declined from 1931 till they reached a stationary point in 1932 and 1933. In 1934 there was a recovery of 25 per cent. and the prices remained at the same level in 1935.

The prices of chewing tobacco of different qualities imported from Bihar at Lucknow market are given below. The leaf is of the *Desi* variety grown in North Bihar and called *Poorbi* in the markets of the United Provinces :—

Annual average prices of chewing tobacco imported from Bihar at Lucknow.
(Per maund).

Year.	<i>Murhan.</i> (Middle leaves).	<i>Chhabua.</i> (Bottom leaves).	<i>Duji (Donji).</i> (Ratoon crop).
	Rs. a. p.	Rs. a. p.	Rs. a. p.
1930-31	10 6 6	3 15 3	2 8 0
1931-32	10 0 0	4 9 3	1 10 3
1932-33	11 4 0	3 12 0	3 8 9
1933-34	8 5 4	3 2 0	3 4 6
1934-35	12 8 0	5 6 9	4 2 8
1935-36	13 2 0	5 0 0	3 4 6
1936-37	9 2 9	3 8 9	3 2 0

The sudden drop in 1933-34 is apparent. In 1934-35, the prices of *Murhan* recovered by 50 per cent., while those of *Chhabua* and *Duji* also increased substantially. There was a further rise in 1935-36 in the case of *Murhan* but in 1936-37, the prices of all the three qualities declined considerably.

(e) *Mysore*.—The annual average wholesale prices of chewing tobacco at Sira, an important centre for chewing tobacco in Mysore State were as follows :—

	Year.	Price per maund.	Percentage change.
			Rs. a. p.
1933	..	9 11 0	..
1934	..	11 8 0	+19%
1935	..	10 3 0	-11%
1936	..	9 6 0	-8%

The month to month variation in prices is small being about a rupee per maund. The prices are generally high from February to April, when fresh crop is available in the market in large quantities. In October-November, the prices are normally 10 to 20 per cent. lower than those prevailing during February to April.

(f) *Travancore*.—As noted earlier in the supply chapter Travancore imports large quantities of chewing tobacco from Jaffna in Ceylon. The average prices of Jaffna tobacco were Re. 0-11-5, Re. 0-10-11 and Rs. 0-10-4 per lb. in 1933-34, 1934-35 and 1935-36 respectively. On the maund basis, the prices were thus Rs. 58-10-8, Rs. 56-1-10 and Rs. 53-1-2 per maund in 1933-34, 1934-35 and 1935-36 respectively. Several qualities of Jaffna tobacco are imported, each quality being designated by a number. The prices of some of these qualities were as below :—

Prices of different qualities of Jaffna tobacco in Travancore.

Quality.	1933-34.		1934-35.		1935-36.	
	Per lb.	Per maund.	Per lb.	Per maund.	Per lb.	Per maund.
6 ..	1 1 4	89 1 9	1 0 0	82 4 6	0 14 8	75 5 11
8 ..	1 0 0	82 4 6	0 14 8	75 5 11	0 13 4	68 8 8
10 ..	0 14 8	75 5 11	0 13 7	69 12 4	0 12 6	64 4 2
18 ..	0 9 10	50 8 4	0 9 6	48 12 8	0 9 4	47 15 6
20 ..	0 8 3	42 6 0	0 8 3	42 6 0	0 8 0	41 2 3

There has thus been a slight decline in prices from 1933-34 to 1935-36.

(6) SNUFF TOBACCO.

(a) *Madras*.—The prices of best quality Mustadabad (Kistna district) snuff tobacco at Madras during the past three years were as below :—

	Year.	Price per maund.					
		Rs. A. P.					
1934-35	34	0	0			
1935-36	37	8	0			
1936-37	34	0	0			

The statement in Appendix LVII gives the average monthly prices of snuff tobacco at Mangalore during the 5 years 1932-33 to 1936-37. The figures indicate continuous decline in price and in 1936-37 they were only about two-thirds of those ruling in 1932-33. It is also evident from the statement that month to month variation in prices is small being less than a rupee per maund.

(b) *North-West Frontier Province*.—In the Peshawar market of the N.-W. F. P. which is noted for the production of snuff tobacco the prices of the famous Naswari snuff tobacco are Rs. 7 per maund for the first quality, Rs. 6 for the second quality and Rs. 5 per maund for the third quality. The prices have remained more or less the same during the past three years.

(c) *Mysore*.—In Mysore, the following were the average annual wholesale prices of snuff tobacco at Ravandur :—

	Year.	Price per maund.						Percentage change.
		Rs. A. P.						
1931	21	12	0				..
1932	20	6	0				— 6%
1933	22	15	0				+11%
1934	21	4	0				— 7%
1935	16	11	0				—21%
1936	8	11	0				—48%

It is seen from these figures that the prices have declined to a considerable extent during the three years 1934 to 1936. In fact there has been a continuous fall during the five year period except in 1933 when there was a slight rise. Enquiries have shown that this fall in prices is very largely due to decline in demand for snuff.

The statement in Appendix LVIII and the diagram facing page 126 show the average monthly prices of *Pindi* tobacco at Ravandur in Mysore State. *Pindi* tobacco is very largely used in the preparation of snuff and to some extent in manufacturing high class *bidis*. These figures indicate that the prices generally tend to be on a higher level during the first half of the year, i.e., January to June, than in the second half. It is significant to note that fresh crop is available in the market also in the first half of the year. The statement further shows that the prices of snuff tobacco have been more or less continually on the decline during the last ten years, except during 1927, 1930 and 1933.

C.—Farm prices of green uncured leaf.

Although the system of selling standing crop is followed to a certain extent in certain areas as will be explained later in the Chapter on 'Assembling', the practice of selling green leaf is almost entirely confined to cigarette tobacco leaf grown in the Guntur and Mysore areas. In the Guntur district the system of selling green leaf is followed only in the case of Virginia tobacco and adopted by extremely few small growers who are in need of cash at the time of harvest. The prices of green leaf in the Guntur area in 1934-35 and 1935-36 ranged from Rs. 15 to Rs. 20 per candy of 500 lb. Green leaf is sometimes sold on an acre basis the system being more commonly practised when the prices are high. In 1934-35 the prices of such sales ranged from Rs. 60 to Rs. 140 per acre depending on the condition of the crop and the quality of the green leaf produced. In 1937-38 the prices of green leaf were high and averaged about Rs. 150 to Rs. 200 per acre in the Guntur area. The proportion of the crop sold in green condition is however extremely small, specially when the prices of cured leaf show a rising tendency. It is estimated that not more than 1 per cent. of the total Virginia crop in the Guntur area is sold in green condition. In the Mysore area, the Mysore Tobacco Company, Limited, organised in 1937 for the development of production and trade in Virginia cigarette tobacco operates entirely by purchasing green leaf from the growers. In 1937 the company paid to the growers an average price ranging from 4 to 5 pies per pound of green leaf. Before 1937 the Mysore Government used to purchase green leaf from the growers and the average prices paid for such purchases were 5.3 pies and 4.5 pies per pound in 1935 and 1936 respectively. Sometimes in the Mysore area chewing tobacco is also sold in a green state. The prices of such sales ranged from Rs. 10 to Rs. 20 per 1,000 green plants during 1934-36. The practice of selling green leaf of indigenous varieties of tobacco appears to be more common in the southern tobacco areas of the State, practically in the Hudson, Penyapatna and Krishnarajanagar talukas and is reported to be spreading in the northern tobacco area also, namely, in Tumkur, Chitaldurg and Kolar districts during the past three years.

D.—Price differences between old and new stocks.

The price of any lot of tobacco, new or old, is the resultant of the interaction of several factors which are not measurable under

the existing conditions of tobacco trade in India. As such it is difficult to assess definitely the price variation between old and new stocks of tobacco. As will be explained later in the chapter on "Storage and Stocks", it is generally acknowledged that tobacco intended for indigenous types of consumption, like *bidi*, *hookah*, chewing, snuff, etc., improves in quality after about six months' storage. Similarly, tobacco intended for cigars and cheroots improves in smoking quality after about twelve months' storage, while that used in the manufacture of cigarettes is considered to be best for manufacture after keeping it in store for about two years.

It may be generally stated that in the case of *bidi*, *hookah*, chewing and snuff tobaccos which are well stored for about six to twelve months after harvest, a premium ranging from 10 to 20 per cent. is obtained. The new crop is available on the market during the three or four months before the commencement of the monsoon in June and the general practice is to store tobacco at least over the rainy season before using it in the manufacture of tobacco products. Extremely few growers store their tobacco for ageing in expectation of better prices, but in the case of those few who have good accommodation and store the whole or part of their crop for some months, it is noticed that the prices improve after about 6 months' storage. In 1935 a grower from Nimgaon in the *Central Provinces* sold part of his tobacco at Rs. 21-6-0 per maund immediately after harvest while the remaining portion was sold by him at Rs. 25-10-0 per maund after 6 months' storage. In the *United Provinces* the price difference between fresh leaf and leaf which is old by 6 months or more is anything between 5 to 25 per cent. In *Bengal* and *Assam*, the *Jati* and *Motihari* tobaccos fetch a premium of Rs. 2 to Rs. 2-8-0 per maund after they are 6 months old. In the *Gujerat*, *Nipani* and *Hyderabad* areas, the *bidi* tobacco stored by the growers for 6 months or more fetches a premium of Re. 1 to Rs. 2 per maund. It may be, however, noted that these high prices realised after storage for some months are almost entirely due to improvement in the smoking qualities of the stored product and not to any improvement in demand.

No premium is paid for stored tobacco unless the stocks are well preserved and have a good strong aroma. If the tobacco is more than a year old, the quality deteriorates and it can then be sold with some difficulty at lower prices. In the case of inferior qualities like the *Bishpat* of *Bengal* and *hookah* tobacco dust, there is hardly any difference between the prices of old and new stocks. In fact it is observed that in all types of tobacco superior qualities keep better and for a longer period during storage than inferior qualities. The best *Meenampalayam* chewing tobacco, for instance, could be kept without deterioration for about 18 months as against only about 6 months in the case of inferior quality even under proper conditions of storage. Storing of cigarette tobacco for ageing is done under controlled conditions by the manufacturers themselves and as such old stocks of cigarette tobacco stored are rarely available on the open market in India.

In the case of *Burmese* cigar and cheroot tobacco, one year old stocks normally fetch a premium of about Rs. 2-4-0 to Rs. 3-6-0 per maund for the first quality and about Rs. 1-2-0 per maund for the second quality.

E.—Price range for the same quality.

In the absence of definite grades and standards, prices vary from one merchant to another on the same day and for the same type and quality of tobacco. The prices secured by the growers in any area, are not therefore uniform though they sell the same type and quality, in the same market and on the same day. Enquiries made at the several markets indicate that the price secured by any particular grower on any particular day depends on the quality of his produce, his credit position in relation to the village merchant or middleman, the quantity of tobacco he can offer for sale, the general economic standing of the buyer and the extent of help the village middleman can give him in getting a better price. Growers generally prefer to sell even at a slightly lower price to a buyer who has got a reputation for prompt payment and for causing the least number of disputes regarding quality at the time of delivery of produce. Bargaining strength, capacity to hold over produce and the extent of competition among the buyers at any given time and place also result in variation in the prices secured for the same quality produce in the same market and at the same time.

Absence of comparable standards makes it extremely difficult to ascertain definitely the price range of tobacco of the same type and quality. Enquiries in Bengal and Assam showed that the price range in a single market for *Motihari* tobacco of a given quality did not exceed one rupee per maund and usually it was much narrower. In the case of *Jati* tobacco, however, the maximum range observed was Rs. 5 per maund. In the Central Provinces the imported *bidi* tobacco price range observed was sometimes as high as Rs. 5 and occasionally even up to Rs. 10 per maund on a single day, the exact difference depending upon the kind of sale transacted, whether cash or credit and the amount of tobacco sold at a time. In Madras, the range on a single day is reported to be up to Rs. 6 per maund in the case of *Virginia* flue-cured cigarette tobacco. In a village named Bakroo of the *Charotar* area of Bombay Gujarat, the range of prices noted on a single day in February 1935, varied from Rs. 2-12-0 to Rs. 5 per local maund of 43 lb. of *Lal bidi* tobacco. In Bihar and other areas the range generally does not exceed a rupee per maund.

F.—Comparison of prices of different types.

It would be of interest to compare the average prices of different types of raw tobacco as obtained by the growers in the principal producing areas. Such comparative price data are not easily obtainable, but the following figures secured during the course of marketing enquiries indicate in a rough manner the variations in the prices of different types in 1935-36.

Comparative growers' prices of different types in 1935-36.

India—						Per maund.
						Rs. A. P.
<i>Cigarette</i> —Virginia flue-cured (Guntur)	..	..	..	..	25	0 0
<i>Cigarette</i> —Virginia flue-cured (Bangalore)	..	..	..	..	25	10 0
<i>Cigarette</i> —Natu (country) sun-cured (Guntur)	..	..	..	..	7	0 0
<i>Cigar</i> —(Dindigul) ..	..	..	..	..	13	13 0
<i>Cigar</i> —fillers (Trichinopoly) ..	..	..	..	..	10	4 0
<i>Cheroot</i> —Bhengi (Rangpur)	..	..	..	..	8	13 0
<i>Cheroot</i> —Jati (Rangpur)	..	..	..	..	10	0 0
<i>Bidi</i> —Lal (Charotar)	..	..	..	..	10	8 0
<i>Bidi</i> —Liloo (Charotar)	..	..	..	..	10	12 6
<i>Bidi</i> —Jarda-Bhuko (Baroda)	..	..	..	..	9	12 0
<i>Bidi</i> —Hatpan and Jarda (Nipani)	..	..	..	..	19	11 0
<i>Bidi</i> —Jarda (Sangli)	..	..	..	..	16	8 3
<i>Hookah</i> —Jati and Motihari (North Bengal)	..	..	..	..	8	0 0
<i>Hookah</i> —Motihari ((Patgram—Bengal)	..	..	..	..	9	2 0
<i>Hookah</i> —Desi (Muzaffarpur)	..	..	..	..	13	11 0
<i>Hookah</i> —Desi (Darbhanga)	..	..	..	..	9	11 0
<i>Hookah</i> —Vilayati (Purnea)	..	..	..	..	3	0 0
<i>Hookah</i> —Kampilla (Lucknow)	..	..	..	..	9	13 0
<i>Hookah</i> —Desi-Biswan (Lucknow)	..	..	..	..	9	6 0
<i>Hookah</i> —Desi-Bahrach (Lucknow)	..	..	..	..	8	2 0
<i>Hookah</i> —Gobhi (Attock)	..	..	..	..	7	0 0
<i>Hookah</i> —Desi (Jullundur)	..	..	..	..	5	8 0
<i>Chewing</i> —Panayat or best middle leaves of Jati and Motihari (Matha Bhanga)	..	..	..	..	17	0 0
<i>Chewing</i> —Meenampalayam (Satyamangalam-Coimbatore)—						
1st quality ..	..	..	..	..	42	10 0
2nd quality ..	..	..	..	..	21	6 0
<i>Chewing</i> —(Sira-Mysore)	..	..	..	..	9	6 0

Burma—

<i>Cheroot</i> —Shwemyin (Rangoon)	..	..	..	..	8	15 0
<i>Cheroot</i> —Hse-gyi Ywe Yaung (Myingyan)	..	..	..	..	10	14 0

It is thus obvious that the highest prices are realised for some of the special chewing tobaccos sold in South India. Apart from the imported cigarette and cigar leaf from Europe and America, the Jaffna chewing tobaccos imported from Ceylon into Travancore sell at a still higher price which may range to anything between Rs. 40 to Rs. 80 per maund. Virginia flue-cured leaf fetched about Rs. 25 per maund, though in 1938 the prices ranged above Rs. 40 per maund. Nipani and Sangli bidi tobacco prices come next in importance to the prices of flue-cured cigarette leaf. It appears that

the prices of these two kinds of *bidi* tobacco are over 75 per cent. higher than the prices of Gujerati *bidi* tobaccos. The cigar and cheroot tobaccos from the Madras Presidency fetch higher prices than those produced in Bengal. Among the *hookah* tobaccos, the *Desi* leaf from Muzaffarpur in North Bihar appears to fetch the highest price, though it may be noted that this type of leaf has also a demand for chewing purposes. The *Vilayati* tobacco grown in the Purnea district of North Bihar appears to be selling at the lowest price among all types of tobacco. The prices of the *hookah* tobacco produced in the Punjab are also the lowest among all the types except that of Purnea already referred to.

G.—Fixation of buying rates.

In giving his offer, the buyer takes into consideration the quality of the produce offered for sale, the amount of production of the type of tobacco required by him and also the probable demand, taking into account the competition from substitutes and the prices for similar types in other localities as well as the stocks of tobacco held in the chief assembling and distributing centres. The reputation of a particular village or specific holding for producing leaf of better quality also receives consideration in making an offer.

Before making an offer for a particular lot of tobacco, the buyer examines the quality by looking at the colour, size and substance, maturity and dryness of leaf, feeling its texture with his fingers. He then tests its strength, in the case of indigenous types tobacco, by breaking the leaf, powdering it between the palms of his hand for smelling the aroma and then by actually smoking or chewing the tobacco. The sample for testing is usually drawn from the middle or bottom of the heap and examined first for admixture of sand, stalks, stems, perished, diseased and insect-attacked leaf. By rubbing the leaf between the palms, sand is loosened and separated, after which further tests regarding strength, mentioned above, are carried on. After these tests are over, the purchaser makes an offer, which if immediately accepted, the bargain is settled. If not, considerable haggling goes on, till the buyer and seller arrive at an agreement. Commission agents, often acting on behalf of the buyers, usually help the buyers in examining the quality of a lot offered for sale and in fixing the price. Whenever the buyer cannot personally inspect the quality of the lot offered for sale, he may either entirely depend on his agent or representative or may get samples and quotations from a number of commission agents to serve him as a guide in making an offer of price. But the extent of sale by sample is extremely small, and the judging of the quality of a consignment by actual examination either of the sample drawn from bulk or of the whole consignment is almost the universal practice followed in the tobacco trade. In the Guntur district of Madras Presidency, the Indian Leaf Tobacco Development Co., Ltd., enters into contract with growers of cigarette tobacco to buy leaf of different grades at prices specified in the contract. The growers are given instructions in grading but at the time of delivery, the company's officials inspect each bale brought in by the growers before fixing the final price:

Except for this instance the buyers and sellers have nowhere any fixed grades on which to base their calculations.

In most of the principal markets of Bengal, Bihar, Bombay and Madras, the extent of demand from a few principal buyers determines the rate at which farmers' tobacco is sold. Thus in the Guntur district of Madras the prices offered by the Indian Leaf Tobacco Development Co., Ltd., which is by far the largest single purchaser of cigarette tobacco produced in the country, determine the ruling rates and other buyers base their offers on those of the Company, as this is presumed to indicate the market conditions. In those provinces where tobacco is largely imported from other areas the daily prices are mainly determined by the prices ruling in the supplying markets. Thus Assam is dependent on the prices ruling in the North Bengal area, Central Provinces on those of Gujarat and Nipani markets in the Bombay Presidency. For Travancore, prices in Madras and Jaffna (Ceylon) markets, determine to a large extent the buying rates of tobacco. In Coorg the prices of locally grown tobacco move sympathetically with those of imported ones. In those markets where tobacco is mainly imported from other provinces, the amount of stocks held by merchants and supply position in the producing areas influence the fluctuations in the daily prices. In these markets the stocks held by the manufacturers themselves influence the demand situation to a larger extent. Owing to the wide differences in quality and the absence of comparable fixed standards, it is almost impossible to measure the fluctuations in daily prices in a market. The buying or selling prices of tobacco are not influenced to any extent by Government interference except in Patiala where the Patiala State Excise Department decree that tobacco products be sold only at a particular fixed price.

H.—Annual average values of exports and imports.

(1) EXPORT VALUES.

The principal exports are unmanufactured tobacco and cigars which together account for over 97 per cent. of the total exports by sea from India and Burma. The following figures show the declared values of exports of these two items from 1931-32 to 1936-37 as compared with the pre-war average.

Declared values of export.

(Per lb.)

	Unmanufactured tobacco.				Cigars.	
	Rs.	A.	P.	Rs.	A.	P.
Pre-war average	0	1 0
1931-32	0	5 1
1932-33	0	5 7
1933-34	0	4 11
1934-35	0	4 8
1935-36	0	4 11
1936-37	0	4 11

It is therefore obvious that the present declared values of exports of unmanufactured tobacco are about 5 times the pre-war average values. Similarly, the value per lb. of exported cigars is over 57 per cent. higher than that prevailing during the pre-war period.

In view of the increasing importance of exports of unmanufactured tobacco, it would be interesting to discuss further the export values of unmanufactured tobacco exported from the ports of different provinces and to the important countries that consume Indian tobaccos. The following figures show the annual average values of unmanufactured tobacco exported from the ports of different Indian Provinces and Burma.

Average annual declared values of exports of unmanufactured tobacco.

(Per lb.)

Year.	Exported from the ports of			
	Bengal.	Bombay.	Madras.	Burma.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1925-26	0 2 4	0 7 9	0 5 8	0 3 6
1926-27	0 2 10	0 7 10	0 5 10	0 3 10
1927-28	0 4 5	0 8 0	0 5 5	0 4 1
1928-29	0 5 3	0 6 6	0 6 4	0 4 6
1929-30	0 5 2	0 7 9	0 6 2	0 5 3
1930-31	0 2 2	0 7 9	0 5 11	0 4 0
1931-32	0 3 9	0 5 11	0 5 9	0 2 7
1932-33	0 3 9	0 5 10	0 6 1	0 3 10
1933-34	0 3 8	0 5 10	0 5 0	0 2 10
1934-35	0 1 9	0 5 10	0 5 0	0 2 2
1935-36	0 1 8	0 4 10	0 5 1	0 2 11
1936-37	0 4 2	0 3 11	0 5 4	0 4 10

In 1925-26, the average value per lb. of exports from Bombay was the highest followed by Madras, Burma and Bengal in that order. Bombay maintained this position till 1931-32, but since then the average value of her exports are on a continuous decline. The average values per lb. during the quinquennium, 1925-26 to 1929-30, were Re. 0-4-0 for Bengal, Re. 0-5-11 for Madras, Re. 0-7-7 for Bombay and Re. 0-4-3 for Burma. During the five years ending 1934-35, the position of average values per lb. was Re. 0-3-0 for Bengal, Re. 0-5-7

for Madras, Re. 0-6-3 for Bombay and Re. 0-3-1 for Burma. It is thus obvious that during the ten years ending 1934-35, the value per lb. of exports from Bombay was the highest. As noted earlier in the supply chapter, the exports from Bombay consist almost entirely of *bidi* and smoking tobaccos, while those from Madras are largely of cigarette, pipe and cigar tobaccos. Exports from Bengal are largely of cheroot tobacco and *Bishpat* (sand leaves) used for cheap cigarettes and cigars. Exports from Burma are of cheroot tobaccos. In 1930-31, the first year of the trade depression, there was sharp fall in the average value of exports, except in the case of exports from Bombay. The decline was more precipitate in Bengal and Burma. In 1931-32, there was an improvement in Bengal, but decline in values in all the other three areas. From this year average values of exports from Bombay appear to be on a continuous decline and in 1936-37 were the lowest among all the Indian provinces and Burma. The average values of exports from Madras have been more constant and ranged from 5 to 6 annas per lb. during the past 12 years. In 1936-37 there was a decided improvement in the values in Bengal, Madras and Burma, but a sharp fall in Bombay.

The following figures show the average values of exports to principal countries :—

Average annual declared values of exports of unmanufactured tobacco.

(Per lb.)

Year.	Exported to			
	United King-dom.	Aden and De-pendencies.	Japan.	Netherlands.
		Rs. A. P.	Rs. A. P.	Rs. A. P.
1925-26	0 5 8	0 7 9	0 4 1	0 3 3
1926-27	0 6 0	0 7 10	0 7 0	0 2 10
1927-28	0 5 3	0 8 0	0 5 10	0 2 7
1928-29	0 6 5	0 6 6	0 6 6	0 3 7
1929-30	0 6 3	0 7 9	0 6 4	0 3 3
1930-31	0 6 1	0 7 5	0 5 10	0 1 7
1931-32	0 5 11	0 5 9	0 4 9	0 2 2
1932-33	0 6 5	0 5 9	0 4 10	0 3 10
1933-34	0 5 8	0 5 10	0 4 9	0 1 10
1934-35	0 5 11	0 5 10	0 3 0	0 2 3
1935-36	0 6 2	0 4 0	0 3 1	0 2 7
1936-37	0 6 1	0 3 11	0 3 6	0 3 0

The average value per lb. of exports to Aden were the highest in 1927-28, followed by Japan, the United Kingdom and Netherlands. It is interesting to note that the average values of exports from Bombay to Aden exactly tally with each other except during 1930-31, 1931-32 and 1932-33, where small differences are observed. This is because almost all the exports from Bombay go to Aden and Dependencies which take Indian tobacco almost entirely from

Bombay, as already noted earlier in the supply chapter. The average values per lb. during the 5 years, 1925-26 to 1929-30, were Re. 0-5-11 in case of exports both to the United Kingdom and Japan, Re. 0-7-7 for exports to Aden and Dependencies and Re. 0-3-1 for exports to Netherlands. During the quinquennium ending 1934-35, the position of average values per lb. was Re. 0-6-0 for the United Kingdom, Re. 0-4-8 for Japan, Re. 0-6-1 for Aden and Dependencies and Re. 0-2-4 for Netherlands. The trend of average values of exports to the United Kingdom appears to be on the rise, the peak periods having been reached in 1928-29 and 1932-33. In 1933-34 there was a decline, but from 1934-35, there has been an improvement, except for a small fall in 1936-37. The export values to Japan show a definite downward trend, particularly from 1929-30. From 1934-35 the unit values have been slightly more than half those prevailing during the pre-depression period. Trade with Aden and Dependencies also indicates a downward trend in values from 1930-31 and in 1936-37, the export value was only about half the average export value per lb. prevailing during the quinquennium ending 1929-30. The values of exports to Netherlands have been irregular, though from 1934-35, the trend appears to be on the rise.

(2) IMPORT VALUES.

Unmanufactured tobacco and cigarettes account for about 97 per cent. of the total imports. The following figures show the annual average declared values of unmanufactured tobacco and cigarettes imported into India and Burma by sea from foreign countries.

Average annual declared values of imports of unmanufactured tobacco and cigarettes.

(Per lb.)

Period.	Unmanufactured tobacco.				Cigarettes.	
	Rs.	A.	P.	Rs.	A.	P.
Pre-war average	0 9 7	3 0 9
1925-26	0 11 0	4 10 5
1926-27	0 11 7	4 10 7
1927-28	0 12 10	4 4 7
1928-29	0 13 7	0 4 11
1929-30	0 13 11	4 0 6
1925-26 to 1929-30 average	0 12 7	4 4 10
1930-31	0 14 4	4 0 0
1931-32	1 0 9	3 10 10
1932-33	1 3 6	3 3 7
1933-34	1 2 1	3 3 5
1934-35	1 2 0	3 9 10
1930-31 to 1934-35 average	1 1 11	3 8 9
1935-36	1 7 2	3 6 1
1936-37	1 5 10	3 7 0

As noted earlier, over 95 per cent. of the unmanufactured tobacco imported is of the Virginian cigarette type obtained from the United States of America and the United Kingdom. It is clear that the trend of the value per lb. of the imported leaf is on the rise. The pre-war average value was Re. 0-9-7 per lb. which rose to Re. 0-12-7 per lb. during the pre-depression period, an increase of over 31 per cent. During the depression period of 5 years ending 1934-35, the average value rose still higher to Rs. 1-1-11, a rise of over 42 per cent. over the previous quinquennium. During 1935-36 the value per lb. of imported leaf rose still further and is believed to be the highest on record during recent years. This rise in values may be explained by taking into consideration two factors, viz., the prices of flue-cured Virginia leaf in the United States and changes from year to year in the quality of imported tobacco leaf. The average annual farm prices of flue-cured leaf in the United States from 1925 to 1937 were as below :—

Farm prices of flue-cured types in the United States of America.

Year.				Cents per lb.
1925	..	..	..	20.0
1926	..	..	..	24.9
1927	..	..	..	20.5
1928	..	..	..	17.3
1929	..	..	..	18.0
1930	..	..	..	12.0
1931	..	..	..	8.4
1932	..	..	..	11.6
1933	..	..	..	15.3
1934	..	..	..	27.3
1935	..	..	..	20.0
1936	..	..	..	22.1
1937	..	..	..	23.1

The range of prices between 1925 to 1929 was thus higher than that prevailing during the next five years, 1930 to 1934, which is exactly reverse to the differences observed in the export values prevailing during the two quinquenniums. There is no information available to indicate the year to year variations in the quality of imported leaf, but it is apparent that the increase in the unit value of imports during the past 12 years is almost entirely due to the increase in the imports of superior quality American leaf and decline in the imports of inferior qualities. This is also supported by the fact that during recent years larger quantities of Indian grown cigarette leaf which is still considered to be inferior in quality as compared to the best imported American leaf, are being used in the manufacture of medium and low grade cigarettes.

The pre-war average value of imported cigarettes was Rs. 3-0-9 per lb. which rose to Rs. 4-4-10 per lb. during the five years ending 1929-30. From 1930-31 to 1933-34, there was a continuous fall in the unit values, due to high rates of import duties prevailing during this period and the diversion to India of the manufacture of many popular brands of cigarettes which were formerly imported from England, as stated earlier in the supply chapter. In 1934-35, there was slight improvement in the unit value on account of the revision in rates of import duty which adversely affected the imports of cheaper brands of cigarettes. In 1935-36, there was again a fall followed by a slight rise in 1936-37.

I.—Market Intelligence.

The desire to know the market situation regarding prices, stocks, arrivals, etc., is universal. There is no organisation in the country which gives any dependable information on market intelligence to tobacco growers. The largest portion (over four-fifths) of the tobacco crop in the principal producing areas in *Bengal*, *Bihar*, *Bombay* and *Madras* is sold in villages. Enquiries are made with other growers who may have sold their produce or who might have come to know the market situation during a personal talk ; and in villages the 'word of mouth' travels faster than newspapers. But very often the only source in villages is the village *baniya* or middleman and itinerant merchants who go from village to village to make purchases. Intelligent growers, particularly from the Guntur, *Charotar* and Baroda areas judge the trend of the market and conclude whether the market will be dull or active in accordance with the nature of enquiries made by these visiting merchants. The other important source of market information is the local assembling centres like Guntur, Palghat, Nipani, Chikodra, Mogri, Muzaffarpur, Barh, Rangpur, Patgram, etc., from where information is obtained by personal visits or through friends and neighbours who might have visited such centres.

The buyers and brokers keep themselves in touch with information on crop condition, arrivals, stocks, general trend of prices, etc., both by personal visits to the producing areas and chief assembling centres and through correspondence with agents. The buying merchants and manufacturers have connections with commission agents in the assembling centres and get letters and postcards giving prices and general conditions of supply and demand. Before making purchases, most of the important buyers visit the producing areas, either by themselves or through their representatives to examine the quality of tobacco and settle the bargain finally. The smaller buyers seek information from the middlemen and merchants in the assembling centres regarding price quotations for different qualities and often call for quotations and samples from more than one middleman or merchant before fixing up the bargain.

The information required by the producers, merchants and manufacturers is thus obtained by their own individual efforts and as such, being private, it has no wide circulation. The wider dis-

semination of market information takes place through different channels, namely :-

(1) GOVERNMENT PUBLICATIONS.

The method of collecting price data adopted by the provincial Governments has been described in the Report on the Marketing of Wheat in India (page 109). So far as tobacco is concerned, the Indian Trade Journal, published every Thursday by the Department of Commercial Intelligence and Statistics of the Government of India, gives monthly prices of unmanufactured tobacco at Calcutta, Guntur, Patna, Bangalore and Hyderabad (Deccan). Figures of weekly arrivals and despatches of certain staple commodities including unmanufactured tobacco at 35 centres are also given in the journal along with figures for the corresponding week of the previous year. From August 1936, a new series on harvest prices of the principal crops is being published in the Indian Trade Journal, the price quotations being collected "mainly through non-official agencies (principally branches of the Imperial Bank of India)..... In all, 16 commodities and 93 centres have been chosen for which weekly prices during the harvest period will be collected **". This series is supposed to "represent prices of the principal crops during their harvesting periods at the more important market centres for each crop", the object being "to obtain a better indication of the prices which the cultivator actually receives for his crop..... **". For tobacco, the centres selected are Muzaffarpur and Purnea in Bihar, Belgaum and Nadiad in Bombay, Guntur, Tirupur and Vizagapatam in Madras and Farukhabad in the United Provinces. Figures of inter-provincial trade movements are published monthly by the same authority in the "Accounts relating to the Inland (Rail and River-borne) Trade of India" and the "Accounts relating to the Coasting Trade and Navigation of British India". Similar monthly publications are issued giving the foreign trade of British India (by sea and land frontiers) and of the maritime States in Kathiawar and the State of Travancore. Figures of area and harvest prices (in only four provinces, viz., Bengal, Bihar and Orissa, Bombay with Sind and Punjab) of tobacco are published in the "Agricultural Statistics of India", while estimates of area and yield of tobacco are given in the "Estimates of Area and Yield of Principal Crops in India", both the publications being annual.

The provincial Governments also collect prices of unmanufactured tobacco and some of them make arrangements to publish the price series either in the local Government Gazette and/or the annual Season and Crop Report. Thus in *Madras*, monthly wholesale prices of Virginia and country cigarette tobacco at Guntur are being published since October 1935 in the local Government Gazette based on information on weekly prices collected by the Director of Industries. In *Bengal*, *Bihar* and *Orissa*, *Bombay* and *Sind* figures of average monthly wholesale prices and harvest prices are collected

*See Indian Trade Journal, August 6th, 1936, page 657.

and published in the local season and crop reports. In the *Punjab* fortnightly wholesale prices for important districts towns like Attock, Hoshiarpur, Jullundur, Ludhiana, etc., are published in the local Government Gazette as well as the harvest prices in the season and crop reports. In the *Delhi* province, wholesale prices of unmanufactured tobacco are published fortnightly in the Government of India Gazette.

In *Burma*, fortnightly prices at four assembling centres, *viz.*, Pakokku, Henzada, Toungoo and Thayetmyo are published in the *Burma Gazette* by the Commissioner of Settlements and Land Records.

The information on prices, area, production, trade movements, etc., published officially is, however, of extremely limited use either to the traders or primary producers, for three reasons. Firstly, the publications are issued long after the events recorded therein have taken place, so that they become of only historical and academic importance. Secondly, details given do not specify the type or quality of unmanufactured tobacco and in the third place, the published data on prices and production appears to be inaccurate in several cases. The inaccuracy of published production figures has already been referred to in the supply chapter.

The Indian Trade Journal publishes monthly wholesale prices at Calcutta, Guntur, Patna, Bangalore and Hyderabad (Deccan). For Calcutta, the prices are quoted for *Poola Common*, which is a term applied to *Jati* tobacco grown in North Bengal. *Jati* has several varieties and qualities and the price quotations do not specify variety and quality. The average annual merchant's buying prices of *Jati* tobacco at Rangpur as collected during the course of marketing enquiries in 1936 and 1937 were Rs. 10 per maund and Rs. 10-8-0 per maund respectively (see page 121). The monthly prices of *Poola Common* at Calcutta as published in the Indian Trade Journal in 1936 and 1937 ranged from Rs. 6-8-0 to Rs. 9 per maund and Rs. 6-8-0 to Rs. 10 per maund respectively. Thus the prices at the producing centre appear to have been higher than those ruling in the distributing centre, which casts doubt on the accuracy of the figures. The published prices for Guntur are stated to refer to qualities of unmanufactured tobacco strips. Guntur grows two distinct types, *viz.*, Virginia and *Natu* (country). The published prices show that the prices of strips of all qualities ranged from Rs. 3.3 to Rs. 13.3 per maund in 1936 and Rs. 2.5 to Rs. 15.8 per maund in 1937. The harvest prices of raw Virginia flue-cured tobacco at Guntur as collected during the course of marketing enquiries, were about Rs. 150 per candy (*i.e.*, about Rs. 25 per maund) in 1936 and Rs. 187 per candy (*i.e.*, about Rs. 31 per maund) in 1937. Similarly, the prices of raw *Natu* (country) sun-cured tobacco were Rs. 43 per candy (or Rs. 7 per maund) in 1936 and Rs. 50 per candy (or Rs. 8 per maund) in 1937. On stripping and redrying the price of both the varieties of cigarette tobacco increases by at least one-third the prices ruling at harvest time. It is thus obvious that the prices published in the Indian Trade Journal do not bear any relation to the prevailing types grown in the Guntur

area. No indication is given about the type and quality for the price quotations published for Patna, Bangalore and Hyderabad (Deccan). So far as price quotations for Hyderabad are concerned, it is noticed that the same quotation is given from month to month continuously for several months. Thus, the price stood at the same figure, viz., Rs. 13-6-0 per maund from March 1933 to January 1934, Rs. 13-3-0 per maund from February 1934 to October 1934 and again from January 1935 to April 1936 and Rs. 11-11-0 per maund from May 1936 to September 1937. The harvest prices of Virginia tobacco at Guntur in 1935-36 were published at a rediculously low figure of Rs. 32-8-0 per candy as against Rs. 40 per candy published for the local (country) tobacco. Such price quotations obviously do not serve any useful commercial purpose.

Similar is the case with published provincial figures of prices. Thus in the Agricultural Statistics of India, Volume I, the harvest prices of tobacco as published for Kaira District of the Bombay Presidency are given at Rs. 26-11-0 per maund from 1929-30 to 1932-33. The published prices for 1933-34 and 1934-35 were Rs. 13-5-0 per maund and Rs. 11-7-0 per maund respectively. The *Charotar* area where the *Gujerati bidi* tobacco is grown lies in Kaira District where tobacco is almost entirely cultivated in the tract known as *Charotar*. The price figures extracted from the account books of several growers and village middlemen during the course of marketing enquiries indicate that the per maund prices as received by farmers for *Lal bidi* tobacco which is by far the most important in that area were Rs. 11-5-5 in 1929, Rs. 7-10-11 in 1930, Rs. 10-5-7 in 1931, Rs. 7-11-3 in 1932, Rs. 8-13-11 in 1933, Rs. 10-11-10 in 1934 and Rs. 7-11-7 in 1935. The published prices have thus no relation to the actual prices realised by the tobacco growers. Another example of the price quotations published for the Delhi province may be given to illustrate the extent of inaccuracy of the price data published in Government publications.

In the Delhi province, the Department of Industries collects and publishes in the Government of India Gazette fortnightly prices of tobacco. The published price series indicate that the wholesale price of "tobacco leaf (dry)" varied from Rs. 10 to Rs. 18 per maund in 1933, Rs. 15 to Rs. 17 in 1934 and Rs. 14 to Rs. 20 in 1935. The prices refer to "tobacco leaf (dry)", a term which has no meaning in the trade. The variety and quality are not specified and the official records do not give any information on these points. The leaf tobacco trade in Delhi consists of the *hookah* types (*Desi*, *Calcutta* and *Kampilla*), and the chewing types (*Poorbi* and *Soorti*). It seems apparent that the prices do not refer either to *Calcutta* or *Desi* since both these varieties were being sold in Delhi at considerably less than Rs. 10 per maund during 1933 to 1935. There remain, therefore, only three types, viz., *Kampilla*, *Poorbi* and *Soorti* to which the prices might possibly refer. *Kampilla* is a *hookah* type, while the remaining two are important chewing tobaccos. Extensive enquiries made of leading merchants in Delhi city indicate that the prices for *Kampilla* (including the lowest and highest qualities) during 1933, 1934 and 1935 ranged from Rs. 10

system of price quotations ought to be worked out. If this could be done, it would bring the producers and consumers into closer contact. It has been seen that the official price quotations are of no commercial use in the absence of any definite system of classification and grading of tobacco. In organising any system of market intelligence, therefore, the first essential would be to classify the area and production of tobacco at least by broad types, *i.e.*, cigarette, cigar, cheroot, *bidi*, etc., as indicated in the supply chapter (page 27). The existing system is such that the quality of the article in each type again varies from one merchant to another. The factors that determine quality are, however, well known and it should be possible to define the various types and classes in accordance with those factors. A provisional system of classification is suggested later in the chapter on "Classification, Grading and Standardisation".

Once the types and qualities have been defined, it should be possible to collect a series of prices in the principal producing areas, at least once a week. The local marketing staff should be made responsible for the collection of these prices, which can then be given publicity for the benefit of the producers and traders in the province. In the first instance only a few centres of production and distribution like Rangpur, Cooch Behar, Calcutta, Muzaffarpur, Darbhanga, Patna, Guntur, Dindigul, Madras, Nipani, Nadiad, Bombay, Delhi, etc., might be selected. The price quotations from these places might also be passed on telegraphically to the central marketing staff for giving publicity to traders all over the country. The general dissemination of information on market prices can be done through the press. The radio also can be used whenever possible and desirable.

Associations of growers and traders might be formed to encourage improvement of tobacco crop, selling by grades and for issuing leaflets and bulletins on market intelligence. One such association, the Indian Tobacco Association, Guntur, organised as a result of efforts of the marketing staff early in 1937, is issuing marketing intelligence bulletins and leaflets on cultivation, curing, grading, and marketing for the benefit of growers, traders and manufacturers. The bulletin is being issued monthly and gives information for the cigarette tobacco producing area of Guntur district in Madras on weather and rainfall, area, condition of seedlings, transplanting, harvesting, curing, outturn, monthly exports from Coconada and Madras, farm prices and imports, stocks and prices in the United Kingdom which is the largest single foreign market for Indian tobacco.

INTER-CHAPTER THREE.

A study of tobacco prices shows the supreme importance of quality and perhaps the most significant fact is that in recent years the price of high quality tobacco has been on the rise while that of second quality has shown a tendency to fall. The average price of flue-cured Virginia cigarette leaf, for example, rose by 46 per cent. between 1930 and 1937. Even first quality cigar and cheroot leaf, in spite of a reduced market, showed a firmness in price, but medium and small cheroot leaf showed a drop of 17 to 20 per cent. High quality *bidi*, *hookah*, and chewing tobaccos show a similar price tendency.

Prices of different kinds of tobacco leaf range from about Re. 0-12-0 per maund to over Rs. 80 per maund, but the normal relationship is roughly as follows. Virginia flue-cured makes about Rs. 25 to Rs. 40 per maund although it has been higher in recent years. *Natu* sun-cured grown in the *Guntur* area runs about Rs. 5 to Rs. 9 per maund. The average for cigar and cheroot leaf is about Rs. 8 to Rs. 14 per maund and for *bidi* leaf Rs. 9 to Rs. 20, the *bidi* tobacco of the *Nipani* area being often over 50 per cent. higher than that of *Gujerat*. Chewing tobaccos show a wider range, from Rs. 9 to Rs. 40 or even more, but snuff tobaccos are on a much lower plane, round about Rs. 9 to Rs. 11. It is difficult to place an average for *hookah* types but a range of somewhere between Rs. 5-8-0 and Rs. 13 per maund would be about normal, the highest being for *desi* leaf of the *Muzzafarpur* district in *North Bihar*. The *vilayati* tobacco grown in the neighbouring district of *Purnea* commands the lowest price amongst *hookah* tobaccos but the prices of *Punjab* grown tobacco are not much better.

The price of the same variety of tobacco grown in the same district may vary from field to field in the same season. For example, the prices of *Calcutta* produced in certain fields near Jaunpur in the United Provinces were as much as Rs. 24 to Rs. 26 per maund while tobacco produced in neighbouring fields fetched Rs. 15 to Rs. 16 per maund and some Rs. 4 to Rs. 6 per maund only. The value of the tobacco harvested in any one field varies according to the part of the plant from which it is drawn. For example, while middle leaves may sell at say Rs. 7 per maund, bottom leaves would make only Rs. 3-12-0 and the ratooned leaf as little as Re. 0-12-0 per maund. The earlier pickings tend to be of a better quality than later.

This perhaps accounts for what seems to be a peculiar fact in the tobacco trade as compared with other agricultural products, namely, that prices immediately after harvest are generally higher than prices in subsequent months. This is particularly so in the case of cigarette and cigar leaf where colour is important. Unless storage is done under carefully controlled conditions, the colour will deteriorate rapidly and subsequent handling will be difficult. It is not surprising, therefore, if in most cases the manufacturers and processors prefer to buy their tobacco from the grower as soon as it is harvested. There are instances, of course, especially in the case of *bidi* and *hookah* tobaccos where colour is relatively unimportant, in which growers by storing and holding over their tobacco in good condition have been able to get an enhanced price of 10 to 20 per cent. six or twelve months after harvest. This is owing to the fact that all tobacco requires a certain amount of time to mature and that up to a point the quality steadily improves. As against the higher prices there are losses in weight, etc. during storage to be taken into account and under present conditions it may be accepted as a general principle that the grower is not likely to benefit

in any way by holding over his tobacco to a later season. Only in very exceptional circumstances would he be justified in not selling his tobacco as soon as it is harvested and cured.

It may be observed that the practice of selling green leaf is not common, though it is done to a small extent by growers in Guntur and Mysore who sell to the flue-curing barns there. Usually the buyer only wants cured tobacco and is not interested in green leaf. The value of the crop is largely determined by the system of curing, and as the proper method of curing depends on the variety grown and the ultimate use to which it is to be put, it is highly important that growers should be better informed regarding the process. So far, apart from experimental work on the curing of cigarette leaf, there seems to be no work being done by agricultural departments on the improvement of the curing methods employed by cultivators in general for other types of leaf.

The growing habit of cigarette smoking has already been referred to. This is reflected in the relatively high average price (over six annas per lb.) of tobacco leaf exported to the United Kingdom. This consists mainly of flue-cured Virginia and the prices are improving. The leaf exported to Japan, however, which is mainly sun-cured country tobacco, shows a falling tendency and is valued at round about Re. 0-3-0 to Re. 0-3-6 per lb. Exports to the Netherlands are of still cheaper scraps. Exports of *bidi* and smoking types of tobacco to Aden etc., which were formerly worth about Re. 0-7-0 or Re. 0-8-0 per lb., are now valued at only about half that price. These tendencies are worth noting as an indication of the growing importance of producing good quality cigarette leaf. The general tendency of tobacco prices to fall in Bengal and Bihar seems particularly worth attention by the authorities in those areas. This is probably due to the production of an excessive

quantity of second quality leaf in those parts. A special study therefore, needs to be made in those areas of the type of leaf which is being produced and of the kind of land on which the tobacco is being grown with a view to increasing the proportion of first quality leaf and to meeting the market requirements better.

That there is ample scope for expanding the market for high quality Indian tobacco is clear from the progress made in recent years in the Guntur district. The high quality flue-cured Virginia produced there is continuing to displace American leaf imported for cigarette making. Further, there are still large imports of chewing tobacco from Ceylon which sell in Travancore at very high prices. It is impossible, therefore, to over-emphasise the need for giving a closer study to the production of special high quality tobaccos in order to meet more fully the requirements of our own market.

As a record of facts or as a source of market news the prices officially recorded are probably even more hopeless in the case of tobacco than other commodities. There is much need for an improved market news service. It will, however, be appreciated that in view of the enormous range in quality of tobacco grown in any one district it will probably continue to be essential for some time, in respect of most tobaccos, for the buyers to inspect the produce in bulk at the time of purchase. When this is done on individual growers' holdings there is likelihood of considerable variation in price from one to the other and the grower on the whole is liable to get the worst of the bargain. One obvious remedy would be for the establishment of a larger number of markets in the producing centres where growers could bring their tobacco for sale and be able to compare the prices offered for their produce with other lots. This would enable buyers to obtain their supplies quickly and would in itself help to educate the grower in producing and

curing his tobacco in the right way. The prices in such markets would also form a basis for comparison with those in other districts. It seems that there is at present only one tobacco market where attempts were made at regulation, *viz.*, that in Sangli State. There is, therefore, plenty of room for improvement and much need for the constitution of a number of regulated markets in each of the five main producing areas.

Where, as in the case of cigarette leaf, it is possible to devise systematic grading it would be desirable that all manufacturers and processors should contract with growers in advance, as is already done in one instance, for the delivery of their crop at the time of harvest and for payment on the basis of the recognised grades. In the interest of price stability every possible inducement and encouragement should be given to the parties concerned to bring about this desirable state of affairs.

CHAPTER IV.—PREPARATION FOR MARKET.

A.—General.

Of all the agricultural crops the tobacco crop is one of the most susceptible to changes in soil, climatic conditions and cultural operations. The types and varieties which produce the best quality leaf under one set of conditions will yield quite a different quality of produce under another set of conditions. Sometimes even different fields in the same locality require different tillage treatments and the farmer himself knows better the requirements of his own particular field; though the main general operation after transplanting is the conservation of soil moisture and aeration, apart from the operations of topping and suckering. Topping and suckering are the most important after tillage operations which determine to a large extent the quality of the finally cured tobacco leaf. These operations, however, require considerable skill and judgment. In the case of Virginia tobacco grown in the *Guntur* district, for example, topping is not generally considered necessary though there are occasions when this operation can be done profitably. If the plants in a field produce thin, small and light coloured leaves, it is always advisable to top the plants. Plants which grow luxuriously and produce dark green leaves are not topped with a view to get leaf of light and fine texture intended for cigarettes and cigars. For indigenous consumption the leaf required should be of a coarse and thick texture which can be obtained by a judicious topping of plants. Suckering is generally considered essential for all types of tobacco.

Apart from the soil, climatic and cultural conditions, the quality of the tobacco leaf, offered for sale in market, very largely depends on the way the tobacco crop is prepared for the market, *viz.*, on the manner in which it is harvested and cured. The quality of the finally cured leaf is very largely determined on the way it is picked or harvested from the plant. The importance of carefulness in preparing the tobacco crop for the market can be easily imagined when it is stated that a grower of Virginia flue-cured cigarette tobacco can easily get 9 annas or more per lb. for his first grade as against 2 annas per lb. for the fifth grade.

The leaves on the plant do not ripen uniformly. The ripening process starts from below and gradually goes up the plant. Most farmers are aware of this process of ripening and the position of the leaf on the plant is one of the important factors taken into account by growers in sorting their tobacco leaf before sale in certain areas, as for instance, Bengal and Bihar. In spite of this, however, the leaves are not generally harvested as they ripen in these areas. Ripening is indicated by a change in colour from green to greenish yellow and in texture from soft and flexible to rough and brittle. For the production of flue-cured cigarette leaf, for which there appears to be an ever-increasing demand, the leaf must be fully mature before it is harvested, otherwise, it retains the green colour after it is cured. An over-ripe leaf on flue-curing

gives an uneven colour and lacks elasticity and fineness of texture. To get the best results on curing, therefore, the picking of the leaves from the plant must be done in 3 or 4 stages and only fully mature leaves must be harvested. Fully matured and ripe leaves alone give the best colour and texture on curing.

The method of handling, green leaf after harvest has also its effect on the finally cured leaf, particularly in the case of cigarette and cigar tobaccos. Bruises, holes and torn surfaces which occur as result of rough handling of the green leaf or scorching of the green leaf which is exposed to the sun's heat for an unduly long time show themselves in the cured leaf.

Of all the methods of curing, the flue-curing is the most complicated and expensive, requiring considerable skill and judgment. It pays better to adopt the expensive flue-curing process only for the type of leaf which the grower is confident will cure into a high grade and to rack-cure the inferior, diseased or spotted leaf as rack-curing is much cheaper. Some of the intelligent growers sort the harvested green leaf into ripe, medium and green if they observe any difference in the maturity of the harvested leaf. Each of the three qualities of green leaf are then loaded separately in the flue-curing barns. But this may not be possible for all such growers and in that case they load all the three qualities in one barn, putting the green leaf at the top of the barn, the medium in the middle and the ripe at the bottom. But such growers are few and far between and it would be best to describe, in brief, the general methods of harvesting, curing and preparing adopted in different areas for each of the important types of tobacco.

B.—Harvesting.

(1) CIGARETTE AND PIPE TOBACCOS.

(a). *Virginia tobacco*.—In the *Guntur* area of the *Madras Presidency*, the Virginia tobacco plant is usually allowed to flower and set seed. The leaves are cut when they are fully matured. At this stage they assume a yellowish green colour. The harvesting season commences by about the end of December and may continue till late in February. Leaves are cut generally in two stages, beginning from the bottom ones as they mature. The harvesting is usually done in the evenings and leaves are then heaped in the field for the night to be carted to the barn next morning. Direct heat of the sun is avoided so that the green leaf may not get scorched.

The method of harvesting followed in *Mysore* is almost the same, leaves being harvested singly as they ripen. Harvesting is generally done early in the morning, the usual time being between 5-30 A.M. to 8 A.M. A field is completely harvested in 4 to 6 pickings, bottom leaves being picked first as they ripen first. These are then followed by middle leaves which are picked in 2 stages as they ripen, the top leaves being picked last. The harvested leaves are then immediately loaded into bullock carts and carried to the barn for curing.

In the *United Provinces* also, the leaves are harvested as they ripen. Usually two or three leaves are picked at a time. In *Sind*, the cultivation of Virginia tobacco has fast declined during the past three years, but it is reported that in the case of those who still continue to cultivate it, the whole plants of Virginia tobacco are harvested and then the leaves are separated from the stem before putting them in the curing barn. In the *Bombay Presidency*, the method of harvesting followed is the same as in the *Guntur* area.

(b) *Country tobacco*.—In the *Guntur* district the leaves of country tobacco are harvested generally about 10 days after first suckering when they assume a yellowish green colour. As in the case of Virginia, leaves are cut in the evenings but the whole harvest may be completed in one stage or two at the most. A portion of the stem about half an inch on either side of the leaf is also cut with a special curved knife. Next morning the leaves are taken to the curing shed.

In the case of *Desi* tobacco grown in *North Bihar* the entire plant is harvested by cutting it close to the ground. This is usually done early in the morning before the sun becomes strong. The plants are considered ripe for harvesting when a majority of the leaves assume a yellowish green colour with light brown spots. The cut plants are then allowed to lie in the field throughout the day, being turned over occasionally so that they might dry uniformly. In the evening the plants are collected and made into small heaps. These heaps are opened up after three or four days and the plants are turned over. They are again allowed to remain in the heap for another three or four days so that after about a week the plants are again handled individually and the leaves separated from the stalks after they are completely wilted. If the weather is cloudy and the sun not strong enough this wilting may take even up to two weeks.

(2) CIGAR AND CHEROOT TOBACCOS.

In the case of cigar and cheroot tobaccos, the harvesting may be done either by cutting the whole plant and then by separating the leaves, or by cutting the leaves from the plant. In the West Godavari district of the *Madras Presidency*, the plants are cut from the morning to noon and then the leaves are separated from the stem in the evening. Harvesting commences when the margins of the leaves begin to dry up and the colour changes to brownish yellow. In the Vizagapatam district the leaves are cut from the plant before being put in the shed for drying. Similar is the practice followed in other districts, namely, Madura and Coimbatore. In the case of *Lankas* tobacco about half the internode on either side of the leaf is cut along with the leaf. At Chebrole (*Guntur* district), where strong type of cheroot tobacco having a keen local demand is grown, harvesting is done in 4 to 5 stages, the leaves being cut from the plant as they mature.

In the case of *Jati* and other cigar and cheroot tobaccos grown in *Bengal*, harvesting commences as soon as the majority of the leaves on the plant show signs of maturity by way of change of

colour from green to brownish yellow. In some places the leaves are harvested as they ripen, the process being locally known as *Bachaakt*. But the system of harvesting the whole field as soon as majority of the leaves show signs of ripening is the one most common and called *Dhalakat* locally. Harvesting is usually done in the early part of the morning.

In *Burma*, the tobacco crop shows signs of maturity about the middle of April when the leaves become thick and sticky and show signs of brittleness at the tip. The colour also turns into brownish yellow and sometimes the leaves show brown spots. There appears to be three distinct methods of harvesting and curing adopted to get leaf of different qualities for different purpose. (a) *E-Hse* :—This leaf is used for manufacturing strong Burmese cheroots, for which only leaves of thin texture of the *Burmese Havana* and *Shwegen* varieties are used, (b) *Kat-Hse* :—This is used with chopped tobacco stalks for making mild cheroot (*Hse-Baw-Leik*, *Shan-Hpet-Leik*, etc.). The two varieties, *Kunywa-Hse* and *Ywet-Pya-Hse* are cured by these methods. (c) *Dah-Hli-Hse* :—This is chopped or shredded tobacco used mainly for pipe smoking.

In the case of *E-Hse* or shade-cured tobacco, harvesting and curing are very carefully done as it represents the best quality tobacco. Topping and suckering operations are carefully conducted to leave on an average only about 9 to 10 leaves on each plant. The leaves are not harvested as they mature, though they are plucked singly when the plant as a whole shows signs of maturity. At the main picking only 6 to 7 uppermost leaves are gathered, the 3 to 4 leaves nearer to the ground being harvested earlier or later as convenient. These ground leaves are regarded as of inferior quality and are seldom reckoned worth the trouble of shade curing.

The value of *Kat-Hse* tobacco largely depends upon the extent of thickness of the cured leaf. Topping and suckering are therefore very carefully done and usually only 8 to 9 leaves are taken from each plant. The leaves are harvested in 3 or 4 stages as they mature. Immediately after gathering the leaves in the morning, they are carried to a shed where they are laid one by one on a plank or other flat surface. To facilitate quicker drying, the midribs are smashed with a light blow from a wooden rod. The following morning the leaves are taken out from the shed and are spread on the ground in the sun in a double layer, reverse side showing on the top but with the leaf blades overlapping, so that the midrib of each leaf is exposed to the sun. They are then lightly covered (presumably to prevent them from being blown away or turned and to protect them from strong sun) with stalks of *Kyn* or *Kaing* grass kept in place by an odd rod or two of bamboo. In some areas this holding of the leaf in places is done with strips of split bamboo placed 3 to 4 inches apart forming a framework or *Kat*. It is from this, though the use of these frameworks is not general, that the process takes its name. The leaves remain thus exposed to the sun throughout the day—during the cloudy weather they remain for 2 days—and in the evening when the air is cool and the leaves reasonably pliable, they

are collected, any leaf from which the midrib is not thoroughly dry being put aside for drying again the next day.

In the case of *Dah-Hli-Hse*, for which, in general, only the inferior tobacco varieties are used, the tobacco is shredded with a *dah* or a knife immediately after it is brought from the field. The leaves are harvested immediately after a majority of them show signs of maturity in the field. The shredded leaves are then dried in the sun for 3 to 4 days, the heaps being moistened from time to time with a sprinkling of water. The damp tobacco is then finally packed tightly in a basket which holds about $1\frac{1}{2}$ bushels and a cloth is tied over.

In Burma, not only the leaf but also stalks, stems and roots of the plant are used as tobacco. The stalks, stems and roots form the by-products of tobacco cultivation and are locally called as *Hse-Yo*. These stalks and roots on a dry weight basis probably represent about 10 per cent. of the total tobacco consumption in Burma. After the leaves are harvested the bare tobacco stalks in the field are sold off to contractors and in the Shwegen area they fetch about a rupee to Rs. 1-8-0 per acre. The plants are uprooted and after shaking off the earth they are cut into small pieces along with their roots. The pieces are then dried in the sun. Later they are mildly roasted and then pounded by means of a pestle and mortar. The pounded material is then sieved and separated into three sizes. These small bits and powder of stalks, stems and roots form, with tobacco leaf proper, an important ingredient in the manufacture of mild and cheap cheroots (*Hse-Baw-Leik*, *Shan-Hpet-Leik*, etc.) so universally smoked throughout Burma.

(3) *Bidi* TOBACCO.

About four-fifths of the *bidi* tobacco crop grown in the *Charotar* and *Nipani* areas of the *Bombay Presidency* is sold in the form of powder (*Bhuko* or *Chura*), the remaining being sold in the form of leaf bundles (*Bandhan* or *Pendis*) used for chewing, *chilam* smoking and *bidis*. For preparing *bidi* tobacco powder the entire plant is harvested by cutting it within 2 to 3 inches from the ground. Harvesting commences as soon as the majority of the leaves on the plant show signs of maturity, which is indicated by the leaves turning yellow and having characteristic spots of reddish brown in colour. The cut plants are then kept in the field and exposed to the sun. After 4 to 6 days they are removed to the threshing yard. In the case of *Lilro* tobacco, which is considered to be a better quality *bidi* tobacco grown in the *Charotar* area, the crop is harvested when the plants are almost completely mature, but a little before the appearance of brown spots on the leaves. The harvested crop is then immediately carried to the curing yard where (usually under the shade of a big tree) a number of poles are erected at a distance of about 10 feet. The method of harvesting followed in the case of tobacco sold in the form of bundles, is the same, namely, cutting of the whole plants after they show signs of maturity.

In the Hunsur area of *Mysore* also, the whole plant of *bidi* tobacco is cut 6 inches above the ground.

(4) *Hookah, CHEWING AND SNUFF TOBACCOES.*

For these types, the harvesting is very largely done by cutting the entire plant, as, for example, in the case of the *Desi* or *Poorbi* tobaccos grown in *North Bihar* and the *United Provinces* and the *Calcutta* variety from the *United Provinces*, *Punjab* and *Delhi*. Usually the harvesting commences when the leaves on the plant turn yellow and brown flecks appear on them. Another indication of ripeness is that the leaves feel thick and gummy. The time of harvesting is usually the early part of the day. Similar are the practices followed in the *North-West Frontier Province* and *Sind*. The cut plants are either left at their place or spread in rows or made into heaps. The plants are then turned over occasionally so that drying may be uniform. In certain parts the leaves are separated from the stem after a few hours' or one or two days' exposure to the sun. The leaves are then spread on the ground or made into heaps for further drying and fermentation. Under normal conditions wilting takes place within 3 to 5 days after harvesting, but if the weather is cloudy it may take 10 to 12 days. For example, in *Bihar*, the harvested plants are kept at their places and exposed to the sun on the day they are harvested. They are then collected in the evening and made into small heaps. The heaps are usually opened up in the morning after three or four days and the plants turned over and left in the heap for another 4 days. If the weather is cloudy, wilting may have to be continued for 12 to 15 days.

In *Assam* there are two methods of harvesting. In one case, only the leaves are harvested, whereas in the other, the whole plant is cut. Harvesting of the whole plant is followed in the *Kharupetia* area where the *Motihari* variety is grown to a small extent. In other parts of the province, the leaves are sometimes cut from the plant with strips of bark joining them. Immature leaves which constitute the *Bishpat* are picked singly. In *Bengal*, the *Motihari* variety, which is both a *hookah* and chewing type, is harvested by cutting the leaves from the plant. Harvesting is generally done early in the morning. In some places in the *Central Provinces* also the harvesting is done by cutting the leaves from the plants as they mature. In the case of *Kabuli* chewing and *hookah* variety of *Farrukhabad* district in the *United Provinces*, the whole plant when cut is left in the field for about 2 days after which the leaves are separated from the stem. The leaves are then spread in the field for drying and turned over after 4 to 5 days. They are allowed to remain in the field until the midrib is dry. Wilting of *Desi* variety—a chewing type of *Biswan* (*United Provinces*) takes about 15 to 20 days.

In the case of smoking tobaccos sold in bundles in the *Charotar* area, the leaves are stripped from the stem with a portion of bark. The plants are harvested as a whole when the leaves show bright yellow colour with orange brown spots. The cut plants are then exposed to the sun for about 6 to 7 days after which the leaves are separated. The leaves are then allowed to remain on the ground for a day or two after which they are collected in the morning on a day when there has been a dew fall, so as to allow a certain amount of moisture in the leaf for fermentation. In the absence of any dew, leaves are moistened by sprinkling a small quantity of water. In

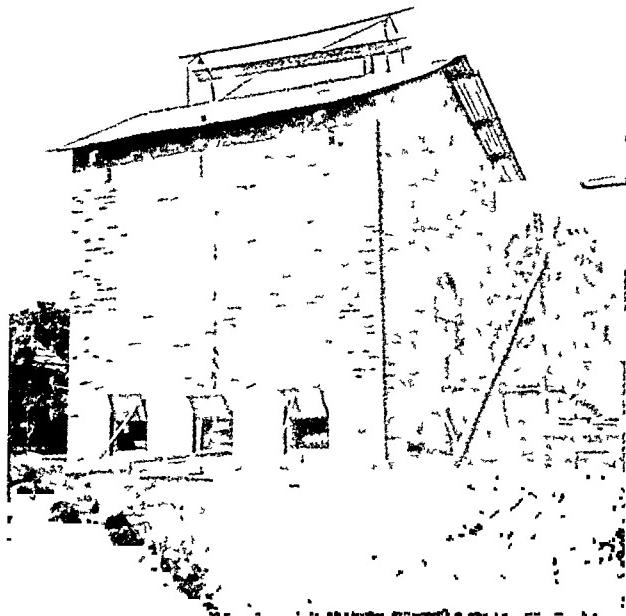
the *Nipani* area, the *Pendi* tobacco is prepared in an altogether different way. The plants as harvested are sprinkled with water when there is no dew. They are then put in pits for curing.

In the Coimbatore district of *Madras* which is famous for its chewing tobacco, plants are cut as a whole for the sun and pit-cured tobaccos. In the case of sun cured chewing tobacco, cut plants are left exposed in the field for 2 to 3 days. They are then hung up in the sun for 15 days and disturbed periodically to ensure uniform drying. The wilting process for the pit cured tobacco is different. The harvested plants are left in the field for drying for 3 or 4 days. They are then removed from the field and heaped for a few days. The heaps are small, each consisting of 4 to 5 plants. The plants are then carted to pits for further curing. At Mustadabad in the *Kistna* district, where the best snuff tobacco in the province is grown, leaves from the plant are harvested at one stage. Leaves are strung on ropes about 7 yards long and cured in the sun for about 2 months.

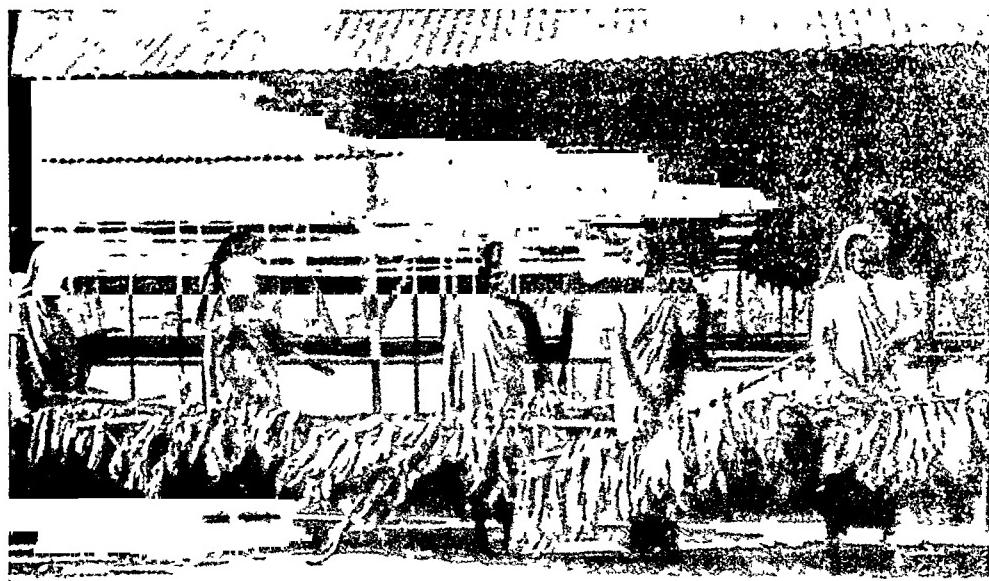
C.—Curing Methods.

Curing is probably the most important operation in the production of tobacco and the method of and efficiency in curing determine to a large extent the quality of tobacco leaf, particularly with regard to colour and texture. It is for this reason that in the United States of America, the leading centre of the world's commercial types of tobacco, the classification of tobacco into types and groups is based largely on the methods of curing. The process of curing is intended to remove moisture from the green leaf in such a manner that the final product has the required colour, texture and aroma. The principal methods of curing adopted by tobacco growers in India and Burma may be divided into four, viz., (i) Flue-curing, (ii) Rack curing, (iii) Ground or sun curing, and (iv) Pit curing. The proportion of the total tobacco crop in India and Burma cured by each of these four methods has already been estimated in the supply chapter (see pages 29-30 and Appendix VIII), but it may be repeated that over two-thirds of the total crop in India is ground or sun-cured, while the production of rack cured tobacco is estimated at about one-fourth. Only about 2 per cent. of the total production is of flue-cured type while the method of pit-curing is adopted for a little over 5 per cent. of the production.

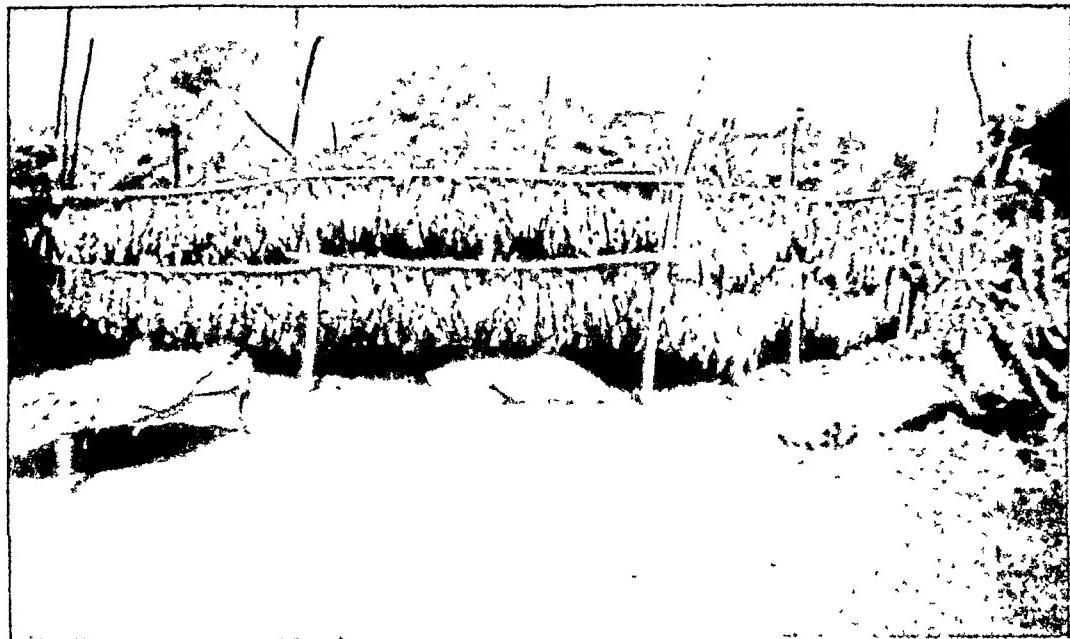
Curing, particularly the method of flue-curing which is the most complicated and elaborate method, is an art requiring skill and judgment and is learnt only by experience. There are no hard and fast rules which would be applicable under all sets of conditions. For the production of good quality leaf, each crop and leaf from each field may require varied treatment in curing. The detailed procedure which may have been followed successfully for curing one particular lot may prove a failure in the case of another due to differences in the qualities of green leaf. It is therefore necessary for all tobacco growers to have as much experience as possible in the method of curing. The best that can be done here is to describe in short the general procedure followed in the different methods of curing adopted for the different types of tobacco produced in India and Burma.



A typical flue-curing barn.



Flue-cured leaf being unloaded from the barn.



Rack-curing of *Lilvo* tobacco in *Charotar*.



A heap of *biai* tobacco powder ready for sale at a farmer's house in *Charotar*.

(1) FLUE-CURING.

This consists of drying green leaf under artificial atmospheric conditions by adopting a process which does not allow the green leaf to come in direct contact with smoke or fumes from the fuel and which permits the regulation of temperature and humidity. The flue-curing method is followed almost entirely in curing the Virginia cigarette tobacco grown in the *Guntur* area, Mysore and the United Provinces. It is also adopted to a small extent for curing better quality country (*Natu*) cigarette tobacco grown in *Guntur*.

The details of construction of a flue-curing barn and the method have already been described by Shaw and Kasi Ram*. It is estimated that there are now (1938) over 2,500 flue-curing barns, in the country located almost wholly in the *Guntur* and *Mysore* areas. Two sizes of barns appear to be most common, viz., about 20 ft. \times 20 ft. \times 22 ft. costing about Rs. 1,300 and commanding 20 acres of tobacco and 16 ft. \times 16 ft. \times 18 ft. which costs about Rs. 800 and can manage about 15 acres of tobacco crop (see plate facing page 172).

Immediately after harvest, the green leaf is carried to the barn premises, where it is first strung on thin bamboo sticks. Three or four leaves according to size, are held together with the backs of their midribs touching one another and the string which is tied at one end to the stick is drawn around the bunch about an inch from the butts, and the bunch thrown over across the stick. The next bunch of leaves is on the opposite side of the stick so that the successive bunches are on the alternate sides of the stick which is about 5 feet long. Such sticks are then mounted in the barn for curing about 8 to 10 inches apart, more space being allowed on hot days. The inside of the barn is divided into a series of layers by means of bamboo poles which form tiers on which are arranged the sticks with the green leaf tied on them. Considerable trouble and judgment are required in arranging the green leaf in the barn and this is usually done the previous evening, the furnace of the barn being lighted the next morning with all the ventilators and doors closed.

After the furnace starts working, the curing process consists of three main stages, namely, (i) yellowing of the leaf, (ii) fixing the colour, and (iii) drying. The heating and adjustment of temperature inside the barn is done by a system of thick metal flues bent twice in the shape of an 'U'. The increase or decrease of temperature is brought about by adding or withdrawing coal to or from the furnace and adjusting the dampers and eye pieces. The ventilators also prove useful. For the yellowing of the leaf, a temperature ranging from 85°F. to 100°F. is used for 30 to 40 hours. The fixing of the colour stage lasts for 16 to 24 hours when the temperature is raised gradually as before, from 100°F. to 120°F. The moisture let off from the leaves is allowed to escape by opening the ventilators, half at first and full afterwards. At this stage the web of the leaves becomes dry while the mid-rib and veins have still

*Production of Cigarette Tobacco by flue-curing by F. J. F. Shaw and Kasi Ram.

some moisture. During the last stage, which may last for 28 to 42 hours the ventilators are gradually closed and the temperature is again slowly raised to 165°F. After the mid-ribs and veins are completely dried, the fire is withdrawn and all ventilators are opened to cool down the barn. The leaf is generally left in the barn overnight with even the doors kept open so that it takes moisture from the air at night and permits handling the next morning when the barn is unloaded. (See plate facing page 172). If the outside atmosphere is dry, water is sprinkled on the floor of the barn and ventilators and doors closed at night so that the leaf will get sufficiently soft for handling the next morning.

This procedure is, however, far too general based on experiments conducted several years back and it is likely that the period required for curing may be curtailed with further experimentation, so that a larger area can be managed with one barn than at present.

The weight of cured leaf obtained comes to about 1 $\frac{5}{5}$ th to 1 $\frac{6}{5}$ th the weight of green leaf. The moisture contents in the cured leaf vary from 8 to 18 per cent. Buyers are generally unwilling to buy cured leaf which contains more than 18 per cent. moisture.

(2) RACK-CURING.

Rack-curing is far simpler than flue-curing. In this the green leaves are cured on strings tied to posts specially erected for the purpose. The method is more commonly followed in Madras (for country cigarette, cigar and cheroots, chewing and snuff tobaccos), Bombay, Baroda and Kolhapur (for *bidi*, chewing and smoking tobaccos), Hyderabad (for cheroot and *bidi* types), and Assam (for *hookah* tobacco). (See Appendix VIII).

In Burma, about 30 per cent. of the crop is rack-cured.

In the *Madras Presidency* the country (*Natu*) cigarette tobacco grown in the *Guntur* district is cured on racks. The leaves harvested in the evening are taken to a temporarily constructed shed or under the shade of a tree and tied to a string about 2 $\frac{1}{2}$ yards long. The strings with the leaves tied on them are then folded and piled on the floor overnight and covered during the day. They are re-arranged the next evening and the process repeated. Altogether about 36 hours' piling is given after which a fairly good yellow colour is obtained. The leaves are then unfolded and tied to racks arranged in the open field. Protection against rains is arranged with thick covering of mats, as any contact with moisture during the drying stage spoils the colour and quality. When the leaves are completely dry they are bulked on a cold dewy morning. In the curing of darker shades of country tobacco, however, a slightly different process is adopted. In this case the leaves are harvested during any part of the day and not in the evenings or mornings only. The harvested leaves are then tied to a string which are then fixed to racks erected in an open field. The drying of the leaves takes about 1 $\frac{1}{2}$ months. The dried leaves are then bulked early in the morning.

At Ellore in the West Godavari district the cut leaves are threaded in the evening and hung up in the open for 24 days. They are afterwards stacked and covered with Palmyra leaves during the day and

opened up at night. At Mustadabad in the Kistna district, the leaves are strung in ropes about 7 yards long and cured in the sun for about 2 months. In the Vizagapatam district the cut leaves are dried in the shade for 3 days and then strung up on racks. In the Madura district, the leaves are harvested and heaped in the same evening, strung up and cured in the open sun for about 20 to 30 days, shifting being done daily. Much the same practice is prevalent in the *Trichinopoly* district.

In *Bengal*, the *Jati* tobacco as well as the *Motihari* to a smaller extent is cured on racks. Immediately after harvest the green leaves are carried in baskets to the farmer's homestead where they are tied into hanks, each containing 4 to 6 leaves. On the following morning these hanks are placed on bamboo poles and kept in the sun for 4 to 6 days for drying, after which they are removed, retied and are arranged on the poles more closely. The poles are again kept out in the sun for one to three days after which they are removed to the curing shed (which may be the grower's hut or cattle shed or a temporarily erected structure) and kept horizontally in tiers. The leaves remain hanging in the curing shed for about a month or more, usually till after a shower of rain, when they become fit for handling. The leaves are then taken off the poles and bulked into heaps.

In *Assam*, the leaves of tobacco after wilting are hung up from bamboos or strings in the open for 7 or 8 days. They are then transferred to a room in the house of the grower where they are hung up from the roof for several days. After getting dry and brittle they absorb moisture on getting the first showers of rains after which they are taken out and tied into small bundles and bulked.

In *Mysore* the harvested green leaves of cheroot tobaccos are tied in bundles and hung up in *pandals* or curing sheds specially erected for the purpose. The plants are allowed to dry in the open air for about $1\frac{1}{2}$ to 2 months and covered with date-palm mats in case of rains. When the mid-rib is dry, the bunches are removed on a dewy morning and bulked in heaps on the ground over which litter is spread.

In the Bombay Presidency, curing of *Lilvo* tobacco leaves of the *Charotar* area is done on racks. The harvested leaves are carted to the curing yard where (usually under the shade of a big tree) a number of posts are erected at a distance of about 10 feet, and coir strings are tied horizontally to these posts at two points from the ground. The leaves are first tied in hanks. Each hank contains about 4 to 5 leaves. These hanks are then placed on the strings tied to the posts for drying (see plate facing page 173). The complete curing takes place within about 6 or 7 days if there is no dew fall, otherwise it may take 10 to 12 days. Similar methods of rack curing are followed in the *Baroda* and *Nipani* areas to a small extent.

In *Burma*, temporary curing sheds are erected for curing *E-Hse* tobacco. These sheds consist of a framework of jungle wood with L1ICAR

bamboo and thatched roof extending from 15 feet at the centre to almost to the ground level at the eaves. The width of the curing shed is usually about 30 feet while the length is composed of a series of 10 feet sections varying in number from as few as 5 to as many as 15, the usual number being 10 to 12. The sheds are open at both ends and one of the end bays is often used as working, feeding and sleeping place by the cultivator and his family. In the sheds, the leaves are first sorted in three groups according to size. They are then threaded through their butt ends. Each string holds about 30 to 40 leaves. The threaded bundles of leaves are then straddled on to 9 to 10 feet long bamboo sticks. Separate sticks are used for each of the three grades of green leaf. Each of the sticks holds about 7 bundles of green leaf. Loaded sticks are then placed on the cross supports erected in the shed. The operations of drying tobacco leaves in the shed may take 20 to 40 days, the actual period depending on weather condition. Leaves with thick midribs may be taken out from the shed after 4 or 5 days and hung on racks temporarily erected under a very light shade for 3 or 4 days in order to hasten drying of the midrib. They are then put back in the shed to complete the drying process. After the leaves are completely dry, they are removed outside the curing shed in the evening and allowed to remain in the open during the night. If the dew fall during the course of the night is insufficient to soften the leaves, water is lightly sprinkled over them. The next morning the leaves are brought back to the curing shed where they are made into bigger bundles or hanks by tying the butt-ends of leaves with a string.

(3) GROUND-CURING.

This is the most common method of curing tobacco in India. Bombay, Bengal, Bihar, United Provinces, Punjab, Madras, North-West Frontier Province, Central Provinces and Berar and Burma are the important provinces where the method is in vogue. Hyderabad (Deccan), Deccan and Kolhapur States, Baroda, Cooch Behar and Mysore are among the important Indian States where the method is followed extensively. The usual process is that the plants are spread on the ground in the early morning and collected into heaps in the evening. The heaps are disturbed occasionally to prevent overheating. The process is continued until the midrib is quite dry. This method has little value for curing a high grade cigarette tobacco, since the leaf gives up its moisture slowly and turns finally to a brown colour. The method is varied in details in different provinces where it is in vogue. The underlying principle, however, is to bring about a certain amount of fermentation either by putting the leaves in layers or in heaps.

In the *Bombay Presidency*, *Lal Bhuko* and *Chura* are removed to the threshing yard after exposing them in the sun for four to six days. They are turned over once or twice while exposed to the sun. The midribs and veins are stripped and the leaves are further allowed to dry and then broken into pieces by hand. The midribs are also dried and beaten into small pieces and mixed with the leaf powder. The mixed powder is then ready for sale (see plate facing page 173).

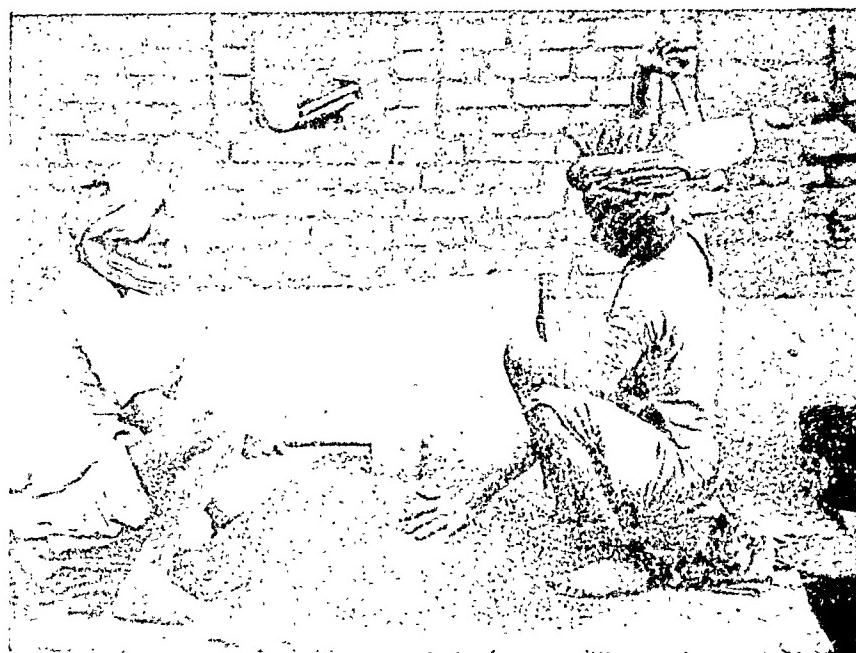
[Facing page 176.



Sorting and stripping of cigarette leaf in an exporter's godown at Guntur.



A hank of *Bishpat* leaf from Cooch Behar.



Calcutta tobacco being made into powder.



Interior of a *Bhuki* factory in the Charotar area showing the sieves used in the preparation of *bidi* tobacco mixtures.

In Bengal, the *Motihari* variety is cured in the sun by spreading the green leaves on the ground or mat or a bamboo platform during the day. At night the leaves are removed to a shed and this process is continued till the mid-ribs become dry. After this the dried leaves are tied into hanks, each containing 8 to 12 leaves. These hanks are then taken to a shed where they are hung on bamboo poles for further drying, usually till the first monsoon showers are received. They are then bulked into heaps.

In Bihar, the dried plants are gathered in the evening and made into small heaps. The heaps are opened up in the mornings. The plants are again allowed to remain in the heaps for another four days. If, however, the weather is cloudy the process might be continued for 12 to 15 days. The leaves are then stripped from the stem.

Hookah tobacco in the *United Provinces* is also cured in heaps. At Kampil in Farrukhabad district in the *United Provinces* which is famous for its *hookah* tobacco, the wilted plants are collected into heaps which are left in the field for two days and then made into bundles of two or three leaves. The bundles are again heaped up and stored in the barnstead and turned occasionally till finally cured. The plants of *Calcutta* variety are dried in the sun after which they may be either tied in bundles or twisted into ropes (*Russa*) or beaten into powder (see plate facing this page).

In the *Punjab* which grows *hookah* tobacco mainly, the wilted plants are heaped on the ground in two or more rows. In the heaps, the plants are so arranged that their tops overlap in the centre of the heaps with the butts facing upwards. The heap is covered with heavy cloth and is allowed to remain as such for six to eight days. During this period, fermentation sets in, and the tobacco develops aroma. After this, the heap is examined. If the leaves have developed a yellowish brown colour the heap is opened and the plants are aired in the sun for a short time. In case fermentation is not complete the heap is allowed to remain undisturbed. If on the other hand the fermentation in the centre of the heap is complete with the top layers remaining uncured, the heap is opened and re-arranged in such a way that the top layers go to the bottom and the bottom ones come to the top. After the plants are aired, the leaves are stripped from the stalks and twisted into ropes which are known as *Russa* and *Khabbars* in the local parlance.

In the *North-West Frontier Province*, the curing of the *hookah* tobacco is done by drying the plants on the field. The leaves are exposed to the sun on both sides for two to three days each until they dry up. After this, in the early hours of the morning when the dew has fallen and the plants are wet, they are collected and carted to the house where the leaves are separated from the stalks and stacked in a room. The heap is covered with quilts or blankets with a view to retain moisture and avoid excessive evaporation. In the case of snuff tobacco the plants are allowed to dry in the sun for 4 or 5 days after which they are collected in the early hours of the morning. After a week the plants are made into small bundles weighing about $2\frac{1}{2}$ seers each and bulked in the open sun and covered with some

matting. After a week or so the stock is stirred and the bundles aired in the sun for a day. The bundles are again heaped for another week to complete the process of drying, after which, the produce is ready for baling.

The method of curing tobacco in the *Central Provinces* is somewhat different. The plants after wilting are removed to the harvest floor where they are arranged in parallel layers of three or four plants in depth. Between the two lines of tobacco, a way about 2 ft. wide is kept to facilitate handling. The plants are allowed to remain in the layers for three or four days and then water is sprinkled over them in the evening, so that the plants may remain damp overnight. They are arranged in a heap early next morning. The heaps are covered with *Kadbi* (*Jowar Andropogon Sarghum* stalks) or bamboo matting and gunnys so that fermentation may take place. The plants are allowed to remain in this condition for three to five days. In the case of stripped leaves, they are dried completely and then heaped on matting and sprinkled with just enough water to wet all the leaves. They are then covered and kept for three to five days so that they may become soft and pliable.

In *Burma* the method of curing *Kat-hse* is again different. The dried leaves are heaped with the individual leaves flat, upper surface against lower under a covering of gunny or in a receptacle closed against air entry. Here they remain for several days or even weeks during which time the rest of the crop is similarly treated. When the whole crop has been dried, the flattened leaves are taken singly from the heaps, lightly sprinkled with water (to which tamarind is sometimes added to give flavour) and bunched into hanks of 30 to 40 leaves each.

In the case of chewing tobacco in the northern area of *Mysore State*, the whole plants when cut are allowed to remain on the ground for 5 or 6 days, after which they are turned over, in the early morning, to expose the other side. They are kept in this manner for another 5 or 6 days after which they are removed to the curing sheds and bulked and re-bulked for 15 to 20 days. The leaves are then separated from the stalks and tied into bundles according to their lengths.

(4) PIT-CURING.

As the name indicates the curing of the leaf is done in pits in the ground. The method, however, is not so common. It is mostly found in the *Punjab*, *Bombay* and *Madras* where *hookah* and chewing tobaccos are cured in this way.

The *Punjab* appears to be the most important province for pit curing. Nearly all the tobacco grown in *Jullundur*, *Ferozepur*, *Gujerat* and *Jhang* districts is pit-cured. The pits are lined with reeds or some straw on all sides in order to prevent the mixing of earth. When the pit is ready, small heaps of wilted plants are arranged in layers in it. In *Ferozepur*, a layer or two of *Ak* (milk weed-*calotropis*) leaves are placed between the layers and this is supposed to increase the pungency of the cured leaf. When the

plants are arranged in the pits, the top layer is covered with straw and then heaped over with earth. The top of the pits stands 4 in.—6 in. above the ground so that rain water may not percolate in the pit. The plants are allowed to remain in the pit for about 6—8 days after which they are twisted into ropes or made into bundles.

In the southern tobacco tracts of the *Bombay Presidency*, *Pendis* (bundles) are prepared from the tobacco cured in pits. The plants on harvesting are sprinkled with water if there is no dew. They are then put in pits about 3 ft. deep with a lining of *Kadbi* straw (*Andropogon*) on the sides and at the bottom. The pit is covered with a gunny cloth over which a layer of *Jowar* (*Andropogon sorghum*) stalks is placed. The plants are weighted down with clods and stones. The pits are opened up within 3 or 4 days. The plants, are however allowed to remain in the pit for 10 or 12 days for *kali* (black) *pendis*. The leaves are then stripped off the plants and made into bundles. The pits are rectangular in shape and 2½ ft.—3 ft. deep and are lined on all sides with reeds or straw.

In *Madras*, however, the process is slightly different. The dried plants when removed from the field are kept in small heap of four or five plants for a few days. They are then carted to a pit 6 ft. deep, 10 ft. diameter at top and 8 ft. diameter at bottom and filled well above the pit for about 3 ft. A layer of tree leaves is used and the pit covered with mud. The plants are kept in the pit for twelve to fifteen days. On removal from the pit, the stem is cut into two halves, leaves are stripped and strung up. The leaves are kept in the open for three or four days and in the shade for a month with frequent turning.

Though the curing in pits provides shelter against winds, rain and hailstorm, there is the danger of overheating in the pits if they are not opened up at the proper time.

D.—Sorting, bulking and re-conditioning.

After the tobacco leaf is cured, it may be sorted into different qualities, bulked for some time for fermentation, and reconditioned in the case of cigarette tobacco. Excepting in Bengal, Bihar, Madras, Mysore and Burma, sorting of cured leaves into different qualities is not practised to any appreciable extent. Bulking is done by piling the cured leaf into heaps when it ferments on account of sweating resulting from the moisture contained in the leaf. A certain amount of fermentation in heaps helps to drive out excess moisture and is considered to improve the flavour and aroma. Re-conditioning is a process by which the amount of moisture contained in the cured leaf is regulated and is considered essential for better qualities of cigarette tobaccos.

(1) BENGAL.

Leaves as a rule are sorted out by the growers who sell their crop in a semi-cured state. The final curing of the crop is done by the merchants or on their behalf by the commission agents who have large curing sheds and warehouses for curing, sorting, bundling and bulking of tobacco.

The sorting of leaves is done to suit the requirements of individual merchants. Sand leaves of both *Jati* and *Motihari* varieties, known as *Bishpat* are sorted out and bulked separately. The brittle leaves of *Jati* variety are kept separate and go under the name of *Poolah* in Calcutta market.

In *Jati* variety, thick, heavy and broad leaves are separated from thin, light and pointed leaves, the former being meant for wrappers and fillers of cheroots and for chewing, for despatch to Rangoon and the latter for despatch to Moulmein in Burma.

In *Motihari* variety the smaller leaves are sorted out and go under the name of *Vilayati* or *Bilayati* while the bigger leaves are sold as *Motihari*.

After taking out the tobacco leaves from the curing sheds, they are tied into small bundles, each containing 13 to 15 leaves. In tying these bundles care is taken to put the best quality leaves on the outside of the bundles, the poorer leaves going at the centre. The bundles are then bulked in circular stacks, with the buttends of the leaves showing on the outside. The stacks are not disturbed for a fortnight or so, after which they are opened. The bottom and top layers of leaf are placed at the centre, while the middle layers go at the top and bottom. This process of rearranging the bulk is done frequently to prevent overheating in the bulk and to obtain uniform colour. During the three months, April to June, re-stacking may have to be done on as many as 8 occasions and the stacks have to be examined periodically to see if there is over-heating. At the time of the final re-stacking the best quality leaf bundles are put at the top and sides of the stack as it is at this time that the final sale to exporters or manufacturers takes place.

(2) BOMBAY.

In the preparation of *bidi* tobacco powders, the dried leaves are roughly pressed so that they fall to small pieces. The mid-ribs and veins, thus stripped are allowed to dry further after which they are beaten into small pieces and mixed with the leaf powder. It is in this form that about four-fifths of the tobacco produced in the *Nipani* and *Charotar* areas (with Baroda, Kolhapur, Sangli and Miraj States) is sold by farmers. The coarsely crushed leaves have to be reduced to smaller sized flakes and this is done either by the *bidi* manufacturers or the assembling and distributing merchants. For this purpose the coarsely crushed leaves are further crushed by hand after which the flakes are passed through sieves of different meshes (see plate facing page 177). Usually wiregauzed sieves are used, though some of the smaller merchants use sieves made of bamboo strips. Different sizes of flakes have got different trade names. The sizes of flakes used for bidis are locally called *farmas* or *double*. Smaller sizes than these are used for smoking in *chilam**¹, for chewing and snuff. These sizes are locally known as *ravad* or *trible*. In this

**Chilam* is the country clay cup or bowl with a tubular bottom through which smoke is carried to the *hookah*, the tobacco and the fire being in the bowl. The *hookah* is inexpensive but the very poor use only the *chilam*.

tobacco gets reduced to fine powder or dust. This is known locally as *dhas* and used for cheap snuff and *hookah* tobacco. The different types of tobacco powders thus prepared are then filled in gunny bags which are then stacked one over the other in a godown for maturing.

In the preparation of leaf bundles, the cured leaves are tied into small bundles, the best leaves being placed uppermost on each side of the bundle and the poorer ones going into the middle. These bundles are then heaped for fermentation. The heap is re-arranged periodically to prevent excessive fermentation and the leaf gets ready for the market within about 4 to 6 weeks after it is first bundled and stacked. Afterwards the bundles are baled and stacked one over the other in a godown.

(3) MADRAS.

In the *Guntur* district, the *Virginia* cigarette leaf is unloaded from the barn in the coolness of the evening, kept in shade overnight and bulked into heaps on the following morning. Bulking consists in arranging the cured leaves, along with the string to which they are tied, in heaps on a raised platform in such a way that the butt-ends show themselves outside at the periphery of the heap. The raised platform helps the free circulation of air underneath the bulk and this prevents the formation of moulds on the leaves. The size of the bulk varies in accordance with the quantity of leaf produced by an individual farmer, but in the case of a small grower it generally consists of fifty strings of leaves. The bulks are covered with mats or tarpaulins. Fermentation soon sets in the bulk and a certain amount of heat is generated on account of sweating due to the moisture contained in the leaves. The bulks are therefore disturbed and rearranged once in two or three days in the initial stages and at less frequent intervals afterwards. It is the usual practice to examine the bulk at least once a week to see if it has become too warm inside. In the process of bulking the slight greenish tinge of the leaves turns into yellow and the leaves become soft and pliable. In the case of growers who have entered into contract with the Indian Leaf Tobacco Development Co., Ltd., to deliver leaf of different grades, the tobacco is graded at this stage. After grading, the leaf is packed into loose bales. In the case of other growers, it is the usual practice to bale the leaf without grading, but after removing trash and spoiled leaves.

With regard to country (*Natu*) light tobacco, bulking is begun immediately after the leaves are dry on a cold dewy morning. The strings of cured leaves are folded and kept in a dark room in a poorly ventilated corner. The heaps are disturbed and re-arranged once in 2 or 3 days in the beginning and at the less frequent intervals of about a week to 10 days a month later. The strings of leaves are then packed in open bundles. Rarely are the leaves graded, except probably for the removal of trash and spoiled leaves. The bales are then carted to the buyer's godown. In the case of country (*Natu*) darker tobacco, the bulks are shifted and re-arranged at longer intervals of about a fortnight to a month. At the time of re-arranging the bulk a weak solution of jaggery and myrobalans is sprayed layer

by layer on leaves and this is supposed to develop a reddish colour and aroma in the leaves. After the growers have completed the bulking operations the cigarette leaf is sold to exporters and manufacturers. The purchased leaf is then carted to the leaf working factories of the exporters and manufacturers. The loose bales as received from the growers are then untied in these factories and graded into different qualities in accordance with the grading practices adopted by individual merchants and manufacturers (see plate facing page 176). After grading the leaf may be stripped to remove the thick mid-rib. The stripping is done by removing by hand the mid-rib to the extent of $\frac{1}{2}$ to two-thirds of its length. It is the usual practice to strip all Virginia flue-cured cigarette leaf before export excepting the first grade. Similarly the first grade sun-cured tobacco intended for export to England is also stripped. Larger portions of the exports to England consist of stripped leaf.

After the grading and stripping operations are over, the leaf is re-conditioned or re-dried. For this purpose all the leading exporters and cigarette manufacturers use the re-ordering or re-conditioning plant. This plant consists of a series of three chambers in each of which the heat and humidity are regulated. The tobacco leaf is passed through each chamber under the action of steam and strong air current. The significance of the re-conditioning process lies in the fact that it re-dries the leaves to uniform moisture, besides helping to kill the insects and germs that may be present in the leaf by the high temperature maintained in the first chamber of the machine. The tobacco leaf as emerges out from the plant is in a soft and pliable condition and contains 10 to 12 per cent. of moisture. Immediately afterwards the leaf is packed either in bales, cases or hogsheads. The tobacco leaf as redried by the re-conditioning plant is considered to keep better and for a longer time during storage without much deterioration in colour. On account of this and the fact that the high import duties in England are collected on the basis of weight of tobacco the importers usually prefer to buy leaves from Indian merchants who have got re-conditioning plant. It is observed that the tobacco leaf exported by merchants possessing re-conditioning plants sells in the English market more readily and at a slightly higher price than the leaf exported by merchants who have not got such facilities. The cost of a machine and other equipments, however, is very high and may range from about Rs. 40,000 to Rs. 100,000, which is beyond the means of smaller exporters. The number of re-ordering plants operating in India in 1933 was only 8. In 1937 it rose to 13 which are estimated to have re-dried about 25 million lb. of cigarette tobacco. The number of machines operating in 1938 is estimated at about 15. It is reported by the exporters possessing these machines that the cost of re-drying comes roughly to about 3 pies per lb. and that the extra prices realised is about 6 pies per lb.

In the case of other types of tobacco grown in the *Madras Presidency*, bulking is done by arranging the cured leaves in heaps which is disturbed and re-arranged periodically to prevent excessive fermentation. If the weather continues dry, water is sprinkled on the heaps and this practice of damping the leaves is more prevalent in the

districts of Madura, Ramnad and Tinnevelly. Sometimes palmyra jaggery water is added to give the leaf sweet aroma and taste. In south Kanara, sand is deliberately sprinkled on the plants.

(4) BIHAR.

After the plants of *Desi* tobacco have become sufficiently dry, the leaves are separated from the stalk and sorted according to their size and situation on the plant. The middle leaves (*Murhan*) form the first quality followed by the bottom leaves (*Chhabua*) and top leaves (*Rainti*). The ratoon crop which is locally known as *Donji* is cured and sold separately. The leaves of each of these qualities are then bundled separately, each bundle containing 8 to 10 leaves. These small bundles are then arranged into a heap on a *pakka* or plastered floor. The heaps are broken up frequently at an interval of 5 to 7 days and again rebuilt so that overheating in the bulk may be avoided. The process is continued for 20 to 35 days. Similar is the procedure followed in the case of *Vilayati* tobacco, except that sorting of leaves is usually not practised.

(5) OTHER AREAS.

In the *United Provinces*, the cured plants of *Desi* tobacco (Sitapur district) are bulked in a heap or *Ganj* for about 2 days after which the leaves are separated and tied into bundles. The bundles are then again bulked in heaps. The heaps are examined periodically when water is sprinkled, the heaps turned over, and the process is continued for about two to three months after which the leaf becomes dry and strong. Similar are the practices observed in the case of *Calcutta* variety except that the leaves are not separated from the plant. In the *Punjab*, no sorting and bulking is done to any extent. In the course of bundling or roping, good and bad plants are mixed together, though a few growers put better quality plants on the outside at the time of preparing ropes (*Russa*) from cured tobacco plants. In the North-West Frontier Province, after the plants of the *hookah* tobacco are dried, the leaves are separated from the stem and then bulked in one of the living rooms of the grower. The bulk of the leaves is covered with quilts or old blankets to prevent the leaves from drying too much. After about a week the leaves become ready for sale. In the case of *Naswar* tobacco, the dried plants are heaped into bulk. After about a week the bulk is broken up and the plants are tied into bundles of about $2\frac{1}{2}$ seers each. The bundles are then again bulked into a heap in the open sun, the heap being usually covered with matting. After about a week or so the heap is again broken up and the bundles are aired for a day. They are then again bulked into a heap for another week after which the produce is packed in bales.

In *Mysore*, the flue-cured cigarette leaf is bulked on long raised platforms. The bulks are about 5 to 8 feet broad, and 4 to 6 feet high. The leaves are so arranged in the bulk that the tips of the leaves are towards the inside. The whole leaf is then covered with a tarpaulin and wooden planks with weights added to press down the bulk. In bulking, the greenish tinge on the leaf turns into yellow. The bulk

are examined once in 3 or 4 days and in case the leaf inside the bulk is found hot or mouldy, the bulk is broken up the leaf aired and the bulk rebuilt. The leaf remains in the bulk for about a month or till sold after grading. The grading is done on the basis of colour and such defects in the leaf as spots, scalding and sponging, etc. Due to the fact that the area is yet small, the flue-cured leaf is not stripped or reconditioned. The chewing leaf is sorted according to size after curing and then bundled. The bundles are then bulked in a heap for sweating for about a month. The heap is broken up and the bulk rebuilt once in three days in the beginning and once in ten days afterwards. Similar practices are followed in the case of *bidi* and snuff tobacco leaves.

Burma.—In the preparation of tobacco (*E-hse*) for strong cheroots, the green leaves are first sorted according to their sizes, the normal method being to put 2 ft. long leaves in the 1st grade, $1\frac{1}{2}$ ft. in the 2nd, and 1 ft. long leaves in the 3rd grade. After curing the leaf hanks are built, butt-ends outwards, into a fermentation heap varying in size with the crop, but usually about 6 ft. in diameter and 3 ft. or 4 ft. in height. The leaf grades Nos. 1 and 2 are often heaped together, but the third grade is almost invariably heaped separately. The heaps are broken up periodically whenever the leaf inside the bulk gets hot due to fermentation. In rebuilding them the position of the leaf bundles is changed to ensure even fermentation. Four to six rebuildings are usual at gradually increasing intervals of approximately 3, 7, 12, 18 and 25 to 30 days until heating in the bulk stops. The hands of moistened leaves of *Kat-Hse* are built into fermentation heaps in much the same way excepting that in this case the comparatively dry leaves which form the heap make rebuilding of the bulk less necessary.

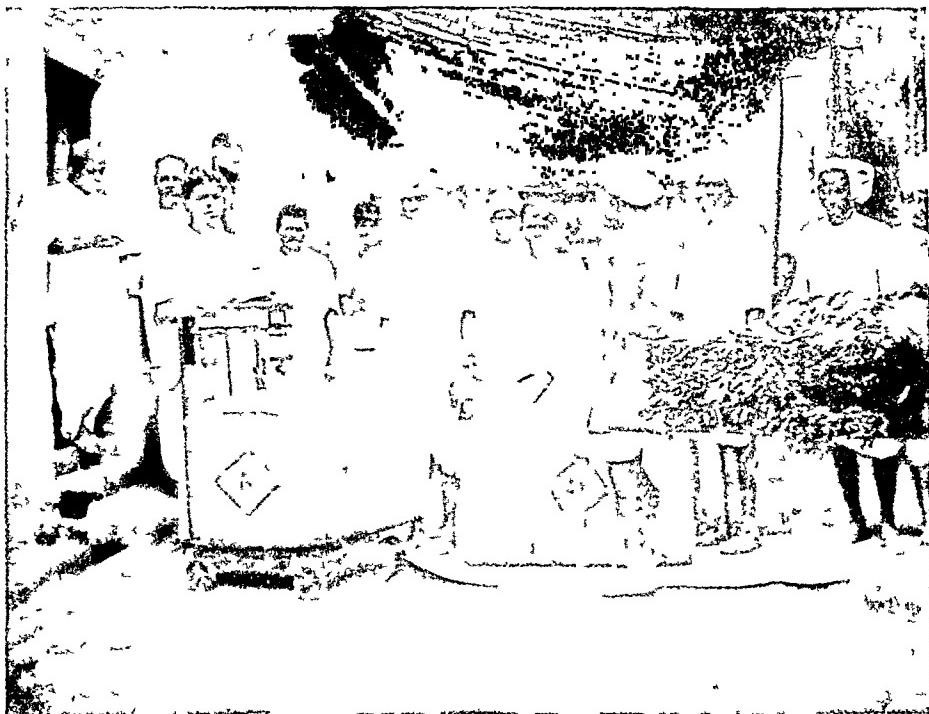
E.—Bundling and packing.

(1) BENGAL.

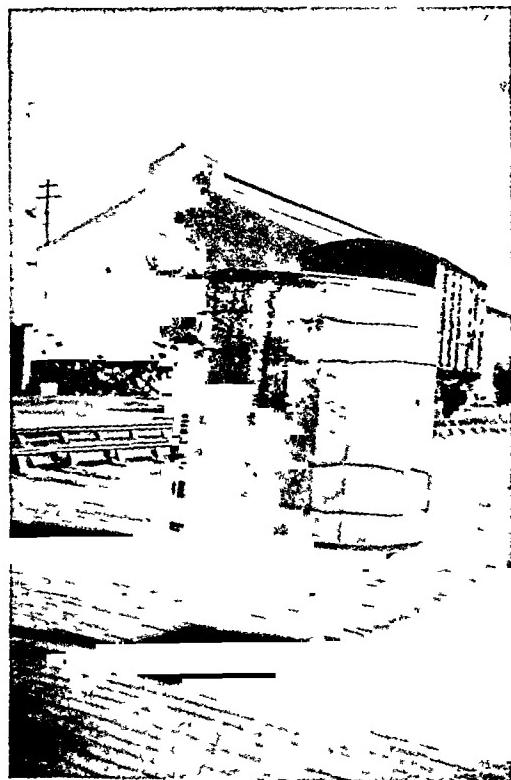
The leaves are first tied into small bundles, each weighing about 2 seers (see plate facing page 176). At the time of tying these bundles the leaves may or may not be spread and flattened. In the case of leaf exported to Burma, the leaves are usually spread and flattened and to facilitate this the leaves are first sprayed with water to make them pliable. Different types of bundles are prepared for different markets in Burma like Rangoon, Akyab, Moulmein, etc., but the usual method is to arrange the leaves by holding their butt ends in such a way that the bundle appears of the shape of a palm of hand. The butt ends are tied with a coloured string or cotton tape. Generally large-sized and superior quality leaves are arranged on the outside of the bundle, the inferior ones being put in the centre. The bundles are then tied in gunny cloth and stitched to form a bale. Each bale weighs from about a maund to a maund and ten seers.

(2) BOMBAY.

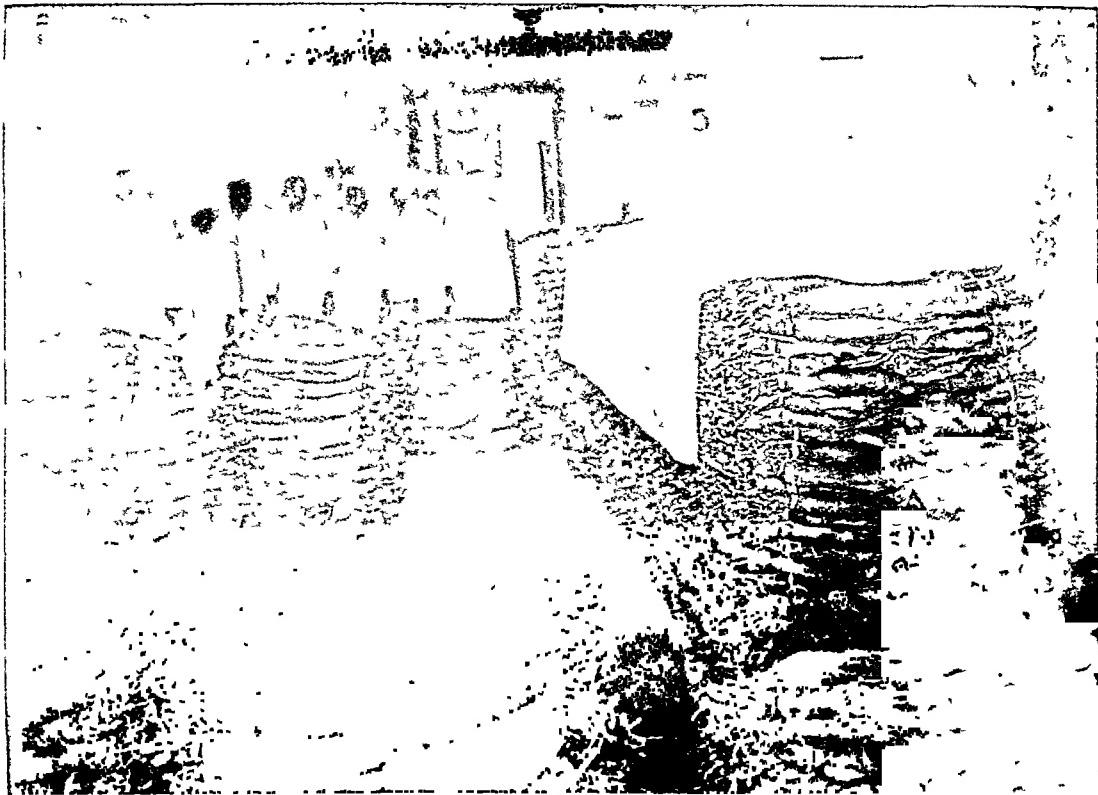
In Bombay, there are many systems of preparing tobacco leaf bundles. In the *Charotar* area, the bundles may be divided into



A bale of cigarette leaf ready for export.



A hogshead of cigarette leaf.



Leaf tobacco bundles arranged in a warehouse in the Nipani area.



A tobacco bale ready for export to Aden being carted to a railway station.

two classes according to the colour of the leaves, namely, *Lal Bandhan* and *Kala Bandhan*. The leaves in *Lal Bandhan* are yellowish brown to reddish brown with spots, whereas the leaves in *Kala Bandhan* are dark to jet black. In the *Nipani* area, the bundles are called *Hatpan* and *Pendis*, the former being similar to the *Lal Bandhan* of the *Charotar* area. Generally, in making the bundles the leaves are separated from the stem on a dewy morning so that they may be moist and tied into bundles. Care is taken that the leaves are not too moist so that the colour of the bundles may not turn dark brown or black. Bundles may be made with or without spreading the leaves. In both the cases, the best leaves are arranged on the top, and the bottom and the inferior leaves are placed in the middle. The bundles of *Hatpan* are prepared by selecting 3 or 4 best quality leaves selected from each plant. Each bundle contains 20 to 30 leaves. *Pendis* are prepared in a somewhat different way. They are made of pit-cured tobacco. The leaves are, on stripping from the plants, divided into two grades. The superior leaves are used for the outside layers and the inferior ones are placed below. In the *Nipani* area, the bundles (*see plate facing this page*) weigh 6 to 12 lb., whereas in *Satara* they weigh 25 to 40 lb. In certain parts, however, smaller bundles of 19 to 20 leaves are also prepared.

The bundles are usually packed in bales, each weighing 160 to 180 and 240 lb. The sizes of bales are 40 in. \times 28 in. \times 14 in. and 40 in. \times 28 in. \times 36 in. respectively. Smaller bales of 100 and 200 lb. are made for trade with *Mount Abu* and *Marwar*. Bigger bales of 400 lb. are also made. The bales of $9\frac{1}{2}$ maunds are used for export to Aden for which a lining of straw is put. The bales in this case are about 4 ft. long and 4 ft. \times $2\frac{1}{2}$ ft. at one end and 4 ft. \times $2\frac{3}{4}$ ft. or 3 ft. at the other end (*see plate facing this page*). These bales are slightly tapering at one end.

The *bidi* tobacco powder is packed in gunny bags in both the *Charotar* and *Nipani* areas. Either only one bag is used or two are joined together to form a bigger container. The smaller sized bag is about 42 inches long and contains about 100 to 120 lb. of tobacco powder while the bigger sized package weighs about 200 lb. and is over 75 inches long with .56 inches girth.

(3) MADRAS.

In the *Guntur* area, growers pack strings of Virginia and country (*Natu*) tobacco leaves in loose and open bales but covered with gunny cloth on the two end sides. The manufacturers and exporters unloosen the leaves from the string, grade and strip them and then pack after redrying either with the help of a reconditioning plant or in the sun. The packing is done in gunny bales, wooden cases or hogsheads, the leaf in each of the three types of packages being pressed close by means of a hydraulic press and by trampling. The leaf exported to Japan is packed entirely in bales (*see plate facing page 184*). Exports to the United Kingdom are also packed in bales, though during the past three or four years the use of hogsheads and cases appears to be on the increase, particularly in packing the higher grades of Virginia flue-cured leaf (*see plates facing pages*

184 and 186). The size of each bale is about 47 in. \times 16 in. \times 16 in. and holds about 240 lb. to 250 lb. of leaf. In preparing bales, the leaf bale is first wrapped in waterproof paper over which is put a date-palm matting. The whole bale is then stitched in gunny cloth. The wooden cases generally measure either 42 in. \times 29 in. \times 29 in. to contain about 300 lb. of leaf or 36 in. \times 25 in. \times 22 in. holding about 250 lb. of tobacco leaf. They are lined with water-proof paper before packing the leaf into them. The normal size of hogsheads as used for export is 48 inches in height and 44 inches in diameter to hold 880 lb. of leaf.

It is understood that at present hogsheads have to be imported from abroad, mostly from the United States and as such being expensive are beyond the reach of ordinary exporters. Wooden cases also do not appear to be easily obtainable in the Guntur area. The American tobacco received in the United Kingdom market is received in hogsheads and it seems to be the general opinion of manufacturers in England that the leaf matures better in hogsheads than in bales, and that there is more damage by breakage when the leaf is packed in bales. It would be therefore desirable to investigate the possibilities of preparing hogsheads from local wood.

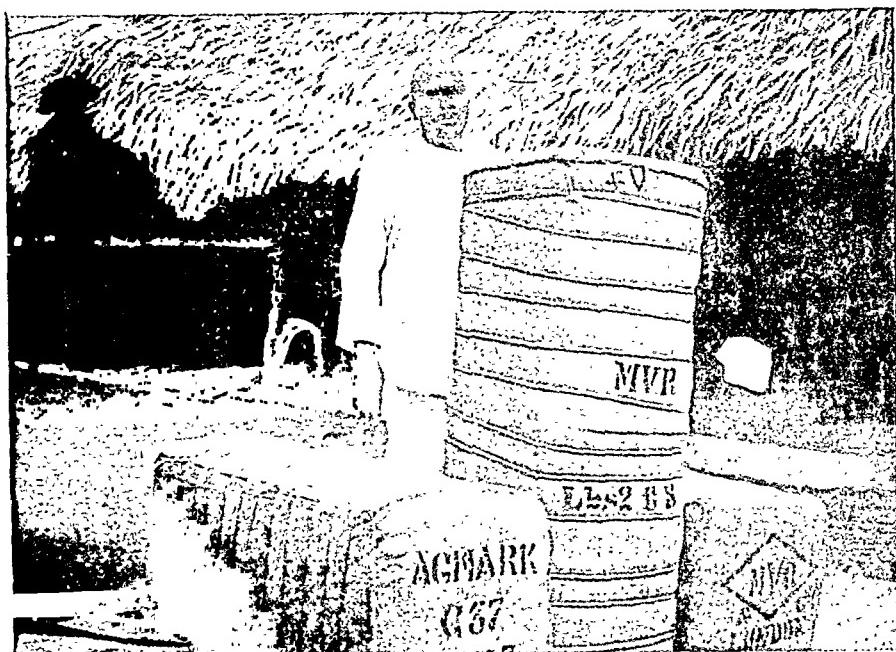
In the *Coimbatore* district date palm matting is used in packing the tobacco leaf into bales which weigh from 80 lb. at Palladam Taluk, 100 lb. in Coimbatore Taluk to 125 lb. in Pollachi, the usual size being 2 feet square and 9 inches deep. *Lankas* tobacco in the West Godavari district is also packed in palm leaf mattings, the bales varying in sizes and weighing from 80 to 130 lb. Bales of *Lankas* produced in Kistna district are also packed in palm leaf matting, but are of larger size, each weighing about 175 lb. In Madura and other districts also the method of packing is the same. The bales in Madura measure about 30 in. \times 25 in. \times 9 in. and weigh about 125 lb. In Mangalore chewing and snuff tobacco leaves are packed in cylindrical bundles covered with cadjan leaves. The bundles are of varying sizes and each weighs $1\frac{1}{2}$ to 2 maunds.

(4) BIHAR.

The leaves of both *Desi* and *Vilayati* varieties grown in *North Bihar* are first tied into small hanks or bundles each containing 8 to 10 leaves. These bundles are then made into bales wrapped in straw and tied with strings (see plate facing this page). The bundles are rectangular in shape but of different weights, varying from $3\frac{1}{2}$ to 6 maunds.

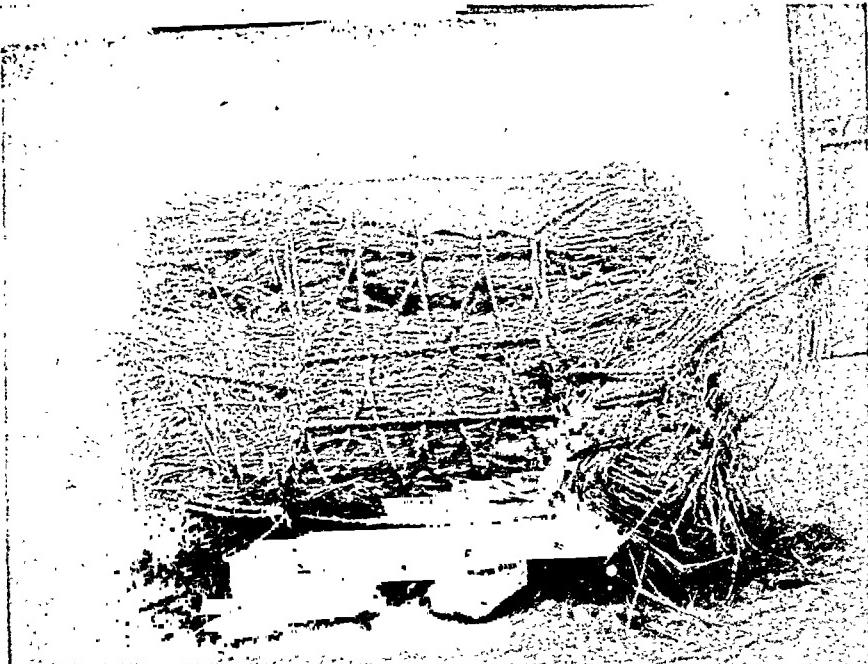
(5) OTHER AREAS.

In the *United Provinces*, the cured plants of *Calcutta* variety are either twisted into ropes (*Russa*) (see plate facing page 187) each weighing about 20 to 22 lb. or made into bales (*Gonds* or *Pallas*) weighing about 3 maunds each or powdered with wooden mallets. Chewing tobacco is, however, made into small hanks of two to five leaves, which are then tied into larger bundles each



Bales of cigarette tobacco leaf ready for export.

(Note the AGMARK bale which contains leaf graded according to standards.)

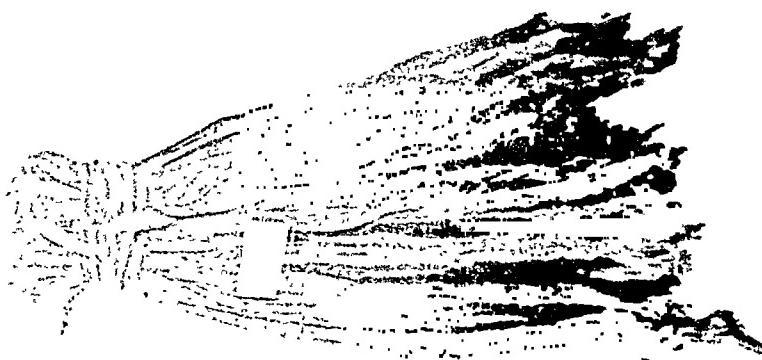


A bale of leaf tobacco from Bihar.

Facing page 187.]



"Rassa" or ropes of *Calcutta* tobacco stored in a godown.



A bundle of *desi* tobacco leaves in United Provinces.

weighing about 4 to 5 lb. (see plate facing this page). The flue-cured cigarette leaf produced near Saharanpur is packed in gunny cloth. Each bale weighs about 160 lb. and measures about 2 ft. X 3 ft. X 3 ft. In the *Punjab*, the tobacco is packed in gunny cloth and each package weighs about 1½ to 2 maunds. Larger-sized packages are also prepared by tying tobacco in date-palm mattings (see plate facing page 188). In *Sind*, the cured tobacco leaf is packed in *Pindis* made of mattings and each *Pindi* weighs about 1½ to 2½ maunds when packed. Gunny bags are also used for packing instead of *Pindis*.

In *Mysore*, *bidi* and snuff tobacco leaves are made into bales by packing them in date palm mats secured by means of ropes. The sizes and weights of bales vary and each bale may weigh from 2 to 6 local maunds of 32 lb. each. *Bidi* powder is packed tight in gunny bags. Chewing leaf is also packed in mattings to form a bale.

In *Burma*, the leaves are first tied into small bundles of 20 to 40 leaves. These bundles are then packed in large bamboo baskets, each of which holds about 360 lb. of leaves as in *upper Burma*. In *lower Burma* small bales, each weighing about 93 lb. are prepared by packing the leaves in gunny cloth.

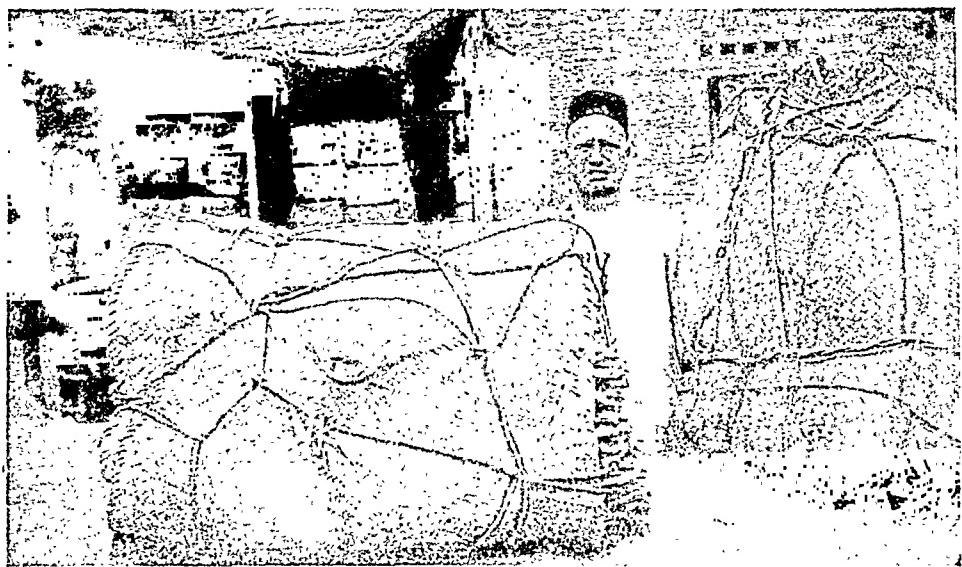
F.—Cost of preparation for market.

So far as the grower is concerned the cost of preparation for market consists of expenses incurred on harvesting, sorting and carrying the green leaf, curing, bulking, sorting of cured leaf, bundling and packing. The following figures indicate the average cost of preparation for market incurred by growers in different areas :—

	Average cost of preparation. (Per maund.)
	Rs. A. P.
<i>India.</i>	
Bengal .. .. ..	.. 1 1 0
Bombay (<i>Lal bidi</i> powder) .. ..	.. 0 8 8
Bombay (<i>Lilvo bidi</i> powder) .. ..	.. 0 6 4
Madras (Flue-cured leaf) .. ..	.. 5 10 0
Madras (Other types) .. ..	.. 2 7 3
Bihar .. .. ..	.. 2 2 0
United Provinces .. .. ..	.. 0 9 9
Punjab .. .. ..	.. 0 15 11
Central Provinces and Berar .. ..	.. 1 2 0
Sind .. .. ..	.. 1 14 9
Mysore (Chewing) .. .. ..	.. 0 15 0
Mysore (Snuff) .. .. ..	.. 2 1 0
Baroda (<i>Judi</i> or bundle) .. .. ..	.. 2 12 6
<i>Burma</i> .. .. ..	.. 0 15 1

It is thus apparent that the cost of preparing flue-cured leaf is the highest being about Rs. 5-10-0 per maund or a little over 1 anna per lb. The cost of preparing leaf bundles in *Baroda* (of the type exported to *Aden*) comes to Rs. 2-12-6 per maund. The lowest cost is that of preparing *bidi* powders in *Bombay*. In this case, the curing is done by the simplest process of drying the leaf in the sun and apart from harvesting and curing, there are no other costs like those of sorting, bulking and even packing. Packing is arranged for by the buyers after the *bidi* powder is purchased on the cultivators' holding.

Apart from the fact that the preparation of flue-cured leaf for the market is most expensive, additional costs have to be incurred by manufacturers and exporters in the matter of further grading, stripping, stemming, pressing and packing. At *Guntur*, the cost of grading comes to about Rs. 2-4-0 to Rs. 2-8-0 per bale of 250 lb., while the charges for stripping, pressing and packing in bales come respectively to Rs. 2-8-0, Rs. 0-4-0, Rs. 0-12-0 per 250 lb. of packed leaf. In the case of country (*Natu*) the cost of removing stems from the leaves comes to about Rs. 2 per 250 lb. of processed leaf. The cost of redrying with the aid of a re-conditioning plant comes to about Rs. 4 per bale of 250 lb.

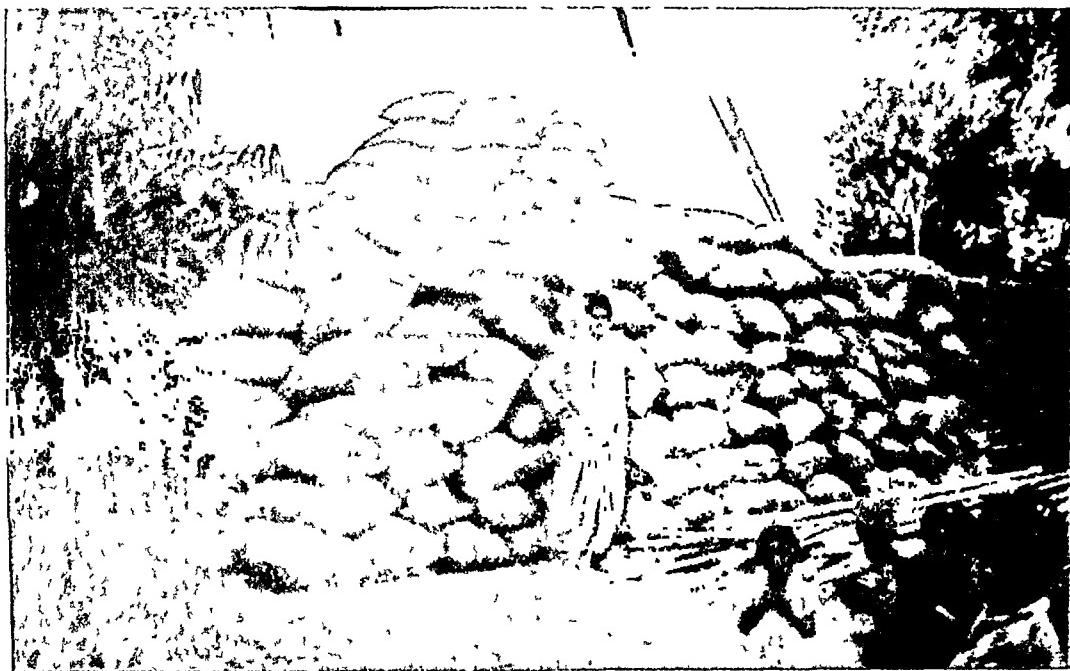


Tobacco packed in date palm mattings in the Punjab.

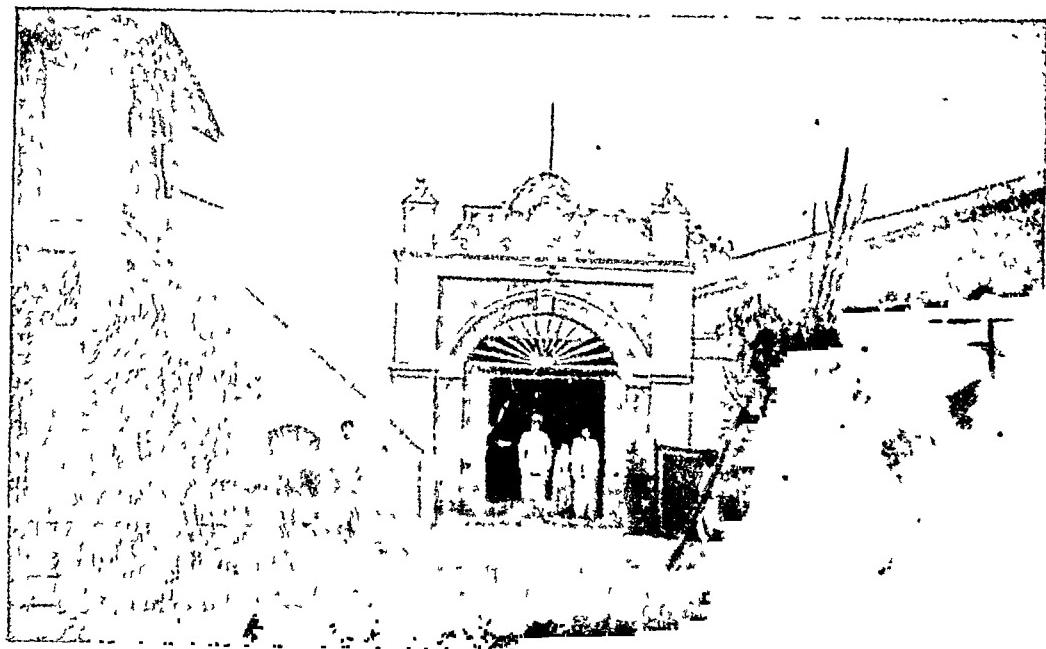


Fixing price under cover at a *dalal's* processing factory and godown in the Charotar area of Bombay Gujerat. Left—Farmer; centre—*dalal*; right—village sub-*dalal*.

Facing page 189.]



A heap of *bidi* tobacco bags received from villages and stacked in the godown compound of a *datal* in the *Charotar* area.



A general view of a *bidi* tobacco processing factory in the *Charotar* area.

INTER-CHAPTER FOUR.

The preparation for market really begins with harvesting but attention needs to be drawn to the importance of pre-harvest operations such as topping and suckering. Plants which grow luxuriously and produce dark green leaves should not be topped if it is desired to have the leaf sufficiently light and of fine texture for cigarettes and cigars. It is desirable, however, to nip the top off weak growing plants in order to get good body in the leaf, and in the case of leaf for indigenous consumption in the form of *hookah* and chewing tobacco, to obtain a coarse thick texture topping is indispensable.

The main steps in the preparation for market are harvesting, curing followed by sorting, bulking and re-conditioning and finally bundling and packing.

The harvesting of tobacco for cigarettes, pipes, cigars and cheroots is done leaf by leaf in stages as the plant matures, beginning with the bottom leaves and working upwards. Harvesting should be done in the early morning or evening since direct heat of the sun is to be avoided. Only mature leaves should be picked. This stage is generally indicated by the leaves turning a yellowish green colour and becoming brittle. The leaves after picking may be heaped in the field overnight and carted to the curing barn, the following morning.

In the case of *bidi* tobaccos and those intended for *hookah* and chewing, the entire plant is harvested by cutting it within 2 or 3 inches from the ground as soon as the majority of the leaves show signs of maturity. This in the case of *bidi* tobacco is indicated by the leaves turning yellow and having characteristic spots of a reddish brown colour. The cut plants are then kept in

the field and exposed to the sun for anything up to six days, before being carried to the curing yard where the better types may be rack-cured in the shade. The details of the methods of harvesting, wilting and drying have to be carefully studied in each case.

Curing is perhaps the most important operation connected with the production of tobacco and has a great bearing on the value of the final product. The producer of Virginia flue-cured cigarette tobacco, for example, may get nine annas or more per lb. for well prepared first grade leaf but only two annas for the fifth grade and the grading will very largely, although not entirely, depend on proper curing.

There are four principal methods of curing adopted in this country, namely, flue-curing, rack-curing, ground (or sun) curing and pit-curing. More than two-thirds of the total crop in India is ground-cured. Rack-curing is estimated at about one-fourth and pit-curing a little over 5 per cent. of the production. Flue-curing is as yet only applied to about 2 per cent. of the crop.

Flue-curing is an expensive process and can only be applied profitably to cigarette leaf. It is an art requiring skill and judgment in carrying out the complicated operations necessary to dry the leaf under artificial conditions. Careful control of temperature and humidity are essential and these have to be modified in the light of experience from one district to another, and from one part of the season to another and also in accordance with the type of leaf loaded into the barn. Normally, after the furnace starts working, the curing process falls into three main stages, first, the yellowing of the leaf at a temperature ranging from 85°F to 100°F for a period of 30 or 40 hours. The second stage consists of fixing the colour by holding the leaf at about

120° F for 16 to 24 hours. During this stage the moisture from the leaves is allowed to escape through the ventilators. During the last stage of drying out the leaf, the ventilators are closed and the temperature raised to 165° F. Thereafter the leaf is generally left in the barn over-night with doors open so that it absorbs moisture from the air and permits of ready handling the next morning. If the outside atmosphere is dry, water is sprinkled on the floor and the ventilators closed.

The methods of curing need further study. A recent experiment has shown that by adopting a sapping system which consists of rapidly raising the temperature in the first stages to burst the sap cells, the time involved in the process can be considerably reduced so that the quantity handled by a single barn in the course of a season can be increased appreciably. The whole process seems capable of still further modification and improvements.

Rack-curing is much simpler than flue-curing. In this case the green leaves are cured on strings tied to posts specially erected for the purpose, usually in the shade. This method is commonly followed in the Madras Presidency for country (*Natu*) cigarette leaf, cigar, cheroot and snuff tobaccos ; in the Bombay Presidency, Baroda and Kolhapur for *bidi*, chewing and smoking tobaccos ; in Bengal for cheroot and *hookah* tobaccos ; in Nizam's Dominions for cheroot and *bidi* types and in Assam for *hookah* tobaccos. In Burma about 25 per cent. of the crop is rack-cured. The process commonly followed is for the leaves to be tied to strings two or three yards long. These are then folded and piled on the floor over-night and covered during the day. After lying for about 36 hours a fairly good yellow colour develops. The strings are then unfolded and tied to racks arranged in the open fields where they are protected by a covering of mats. When completely dried the leaves are bulked, preferably on a cold dewy

morning. If it is desired to obtain a darker leaf, the leaves are harvested during the heat of the day. They are not bulked but tied to strings and immediately fixed on racks in the open field where they are allowed to remain for about $1\frac{1}{2}$ months. The process varies somewhat from one district to another and also needs careful study in detail.

Ground-curing is the most common method of curing tobacco throughout India generally. The usual process is for the plants to be spread on the ground in the early morning and collected into heaps in the evening. These heaps are turned over occasionally to prevent overheating although it is essential to bring about a certain amount of fermentation. The process is continued until the mid-rib is quite dry and the leaf turns fully brown. The process varies according to the type of tobacco and in some cases it may be necessary for the heaps to be sprinkled with water in order to bring about the right amount of fermentation and render the leaves soft and pliable.

Pit curing consists of arranging layers of wilted plants in pits lined with reeds or straw. The top layer is then covered with earth. The plants are allowed to remain in the pit for 6 to 8 days after which they are twisted into ropes or made into bundles. Here also it may be necessary to sprinkle the leaves in the pits with water if there is no dew at the time of pitting. There is, however, a great danger of overheating if the pits are not opened up at the proper time.

After curing in most of the main areas the leaves are sorted into different qualities—a kind of rough grading—and these are then bulked by piling the cured leaf in layers into heaps where it is allowed to ferment so as to dry out excess moisture and at the same time improve the flavour and aroma.

Reconditioning is a process by which the amount of moisture contained in the cured leaf is artificially regulated. This is applied only to cigarette and pipe tobacco and is considered essential in the production of the better qualities, particularly for export. Prior to reconditioning, such leaf is generally stripped by removing about two-thirds of the mid-rib. In the process of reconditioning, the tobacco is passed through a series of three chambers in each of which the heat and humidity are regulated so that the leaf emerges in a soft pliable condition and contains only 10 to 12 per cent. of moisture. It is essential in such cases that the leaf should be packed immediately, preferably in hogsheads.

The methods of bundling and packing vary with the district and the type of tobacco. Generally in making bundles the leaves are separated from the stem on a dewy morning and put into bundles of about 20 or 30 leaves generally with the best leaves on the outside. The butt ends are tied with string or cotton tape. The bundles are then packed in gunny cloth stitched to form a bale, the weight of which varies considerably. In the case of cigarette tobacco, packing may be done in gunny bales, wooden cases or hogsheads, the leaf in every case being pressed close by means of an hydraulic press or trampling. The bales and wooden cases generally contain about 250 lb. of tobacco and the hogsheads over three times this quantity. The wooden cases are generally lined with water-proof paper before packing the leaf and in preparing bales the leaf is first wrapped in water-proof paper over which is put a date palm matting, the whole then being stitched in a gunny cloth.

It is understood that at present hogsheads have to be imported from abroad, mostly from the United States of America and as such are beyond the reach of ordinary exporters. It appears to be difficult to obtain even wooden cases. In view of the fact that it is essential to

keep the tobacco in good condition till the cigarette leaf matures it would be well if packers were in a position to obtain hogsheads made from Indian wood at a reasonable price.

CHAPTER V.—ASSEMBLING.

A.—Agencies engaged in assembling.

In the case of tobacco, as in other agricultural commodities, assembling is by far the most important stage in marketing since at this point the grower converts his crop into cash.

The following chart shows, in a general way, the agencies engaged in the assembling and distribution of farm-cured tobacco :—

GROWER OR VILLAGE MERCHANT.

Commission agent or broker.

Commission agent
(Warehouseman and stockist.)

Wholesale merchant
(from outside).

Manufacturers.

Retailers of
raw tobacco
and other
wholesalers.

Manufacturers.

Village Merchant.

Wholesale merchant.
(from outside).

Wholesale
merchant
(from outside).

Commission agent
(warehouseman
and stockists).

Wholesale
merchant
(from
outside).

Manufacturers

Retailers
of raw tobacco
and other
wholesalers.

Manufacturers

Manufacturers

Manufacturers

Retailers
of raw
tobacco
and other
wholesalers.

Manufacturers

It may be, however, noted that the list of intermediaries is by no means exhaustive and complete, though, in general, the chart shows the channel of distribution of farm-cured tobacco for internal consumption in all the tobacco producing areas of the country.

Growers sometimes take their produce to a regular or periodical market or fair for sale. Some of the well-to-do growers supplement their load by buying produce of their neighbours. Tobacco is, however, very rarely taken to market by the grower himself, chiefly because there are extremely few regular markets for tobacco in the producing areas. A desire to have ready cash soon after harvest, defective means of transport to the assembling centres, and the complicated and varying market practices and multiplicity of market charges are some of the other reasons which explain the preference of the bulk of the growers to sell their crop in their own villages.

Village baniyas and money-lenders may buy tobacco from growers from their own and surrounding villages and sell it to visiting merchants or buyers in a nearby market. They deal mainly in other commodities like grain, oilseeds, etc., and tobacco generally has a minor place in their trade. In *Hyderabad* and *Burma*, the local village money-lender appears to play a dominant part in assembling tobacco.

Itinerant dealers (*e.g.*, *pherias* and *paikars*) who go from village to village and buy small quantities from producers, transporting the loads to markets for re-sale, are not found to occupy any place of importance in the assembling of tobacco which seems to be due to the fact that tobacco-leaf is particularly liable to be damaged during transport.

A major portion of the tobacco crop is assembled by wholesale merchants and manufacturers who visit the tobacco growing villages and buy through village baniyas and *mahajans* who act as brokers and commission agents. The services of the *baniyas* and *mahajans* are availed of in view of the fact that they are possessed of the knowledge of the local crop conditions, the men and the customs of the localities. Sometimes, the merchants and manufacturers send their agent for making purchases in this manner.

Some of the commercial concerns which manufacture tobacco products like cigarettes and *bidis* buy raw material from growers through their own special purchasing organizations.

Professional curers buy green leaf from the growers for curing, though this system is mainly confined to the *Guntur*, *Mysore* and *Bihar* areas.

Arhatiyas and dalals.—In most markets like *Nipani*, *Rangpur*, *Patgram*, *Muzaffarpur*, *Dalsingsarai*, *Hazro*, etc., the commission agents (*dalals* and *arhatiyas*) also undertake the functions of warehouseman and wholesale merchant and in the latter capacity may buy tobacco on their own account. A considerable portion of the tobacco produced in India is assembled through *dalals* and *arhatiyas*.

in their capacity as wholesale merchants. They assemble the bulk of the tobacco crop in Bengal, Bihar, Bombay, the United Provinces, Baroda and Cooch Behar. In Assam, Punjab and North-West Frontier Province also, the *arhatiyas* assemble a considerable portion of the local produce. Usually they have large godowns and warehouses for the final drying of tobacco and subsequent sorting and bulking.

The part played by co-operative sale organisations in assembling tobacco is insignificant as will be explained later.

B.—Methods of assembling and sale.

(1) GENERAL.

Unlike other agricultural products the most common method of sale adopted by tobacco growers is to sell the crop in their own villages and it is estimated that four-fifths of the crop is disposed of in this manner. The several methods of selling adopted by the growers in various parts of India and Burma may be grouped into :—

- (a) selling standing crop ;
- (b) selling green leaf after harvest to local professional curers ;
- (c) selling the cured crop in villages ;
- (d) selling the cured crop on contract basis ;
- (e) selling the cured crop in markets ; and
- (f) selling through co-operative sale societies.

(a) The method of selling the crop while it is still standing in the field is common in the *Nipani* area of the *Bombay Presidency*, *north Bihar* and *Delhi Province*. It is also followed to a smaller extent in other areas. It is estimated that in the *Nipani* area about three-fourths of the growers sell their crop in this manner while the proportion of growers selling their tobacco in this way in *north Bihar* is roughly estimated at about one-fourth to one-third. The extent of such sales in *Delhi Province* is estimated at about two-thirds of the total annual crop. In such sales the buyer may take delivery immediately after the green crop gets ready for curing, and do his own curing as in *north Bihar* or the crop may be delivered to the buyer after curing as in the *Nipani* area and *Delhi*.

(b) The system of selling green leaf after harvest to expert curers is found to be common only in *Guntur* and *Mysore* areas. In *Guntur*, the method is adopted only in the case of Virginia cigarette leaf which is sold by a few growers in green condition to owners of flue-curing barns. In *Mysore*, the Virginia cigarette leaf is sold in green condition by the growers to the *Mysore Tobacco Co., Ltd.* The system is also prevalent for indigenous types of tobacco grown in the *Mysore State* and it is estimated that between two-thirds to three-fourths of the crop is sold in green state by the growers to buyers who specialise in curing.

(c) The method of selling tobacco after curing in the village itself is the one most common both in India and Burma. The whole-

sale merchants from cities and towns either visit the tobacco growing tracts themselves or send out their agents during the harvesting season to make purchases of tobacco through the local commission agents. A few of the merchants intimate their requirements by post to their respective local commission agents, but the system of visiting the places of tobacco production is more common in the principal tobacco producing areas of *Bengal*, *Bombay*, *Madras* and *Bihar*.

(d) Selling of cured leaf on contract is found to be prevalent only in the case of Virginia cigarette tobacco grown in the *Guntur* area. In this method the growers enter into contract with the Indian Leaf Tobacco Development Co., Ltd., to grow a certain quantity of Virginia cigarette leaf and sell it to the company after curing at varying rates and on conditions according to grades specified in the contract.

(e) The proportion of the crop that is sold by the growers in regularly established markets is very small, probably not more than 10 per cent. This system is generally adopted by the growers who are well-to-do, possessing large areas under tobacco, and who are favourably situated so far as the location of a market is concerned.

(f) The sale of tobacco through co-operative sale societies has not gained any popularity worth the name. The survey indicates there are only 3 co-operative societies which handle tobacco in extremely small quantities ; two in *Bombay* and one in *Madras*. During 1934-35 the Varna Valley Co-operative Sale Union arranged to sell about 3,000 bags of tobacco in its branch at Sangli. In the same year the Shri Ganapati Co-operative Sale Shop at Sangli handled about 3,000 maunds of tobacco. At *Nipani*, a co-operative tobacco sale society operated for more than 12 years. The influence of the local brokers, the difficulty of obtaining payments soon after sale and the absence of any system of grading and proper storage facilities were largely responsible for its failure. The Vizavada Co-operative Loan and Sale Society in Kistna district of *Madras Presidency* also handles cheroot tobacco but the quantity is almost negligible. There seems to be a consensus of opinion that special difficulties exist in the working of tobacco sale societies, there being no definite grades and standards for tobacco which makes it difficult to assess the value of the material deposited with the society for sale. Most of the sales of tobacco are done on credit with individuals and firms from distant markets and it is difficult to ascertain their position and to judge the extent of credit that may be given to them. A business of this nature necessarily involves several risks and a number of co-operative sale societies which deal in other agricultural commodities do not like to include tobacco in their list. Even if they do, they are likely to meet with failures under the existing system of marketing, unless special precautions are taken, particularly with regard to credit transactions and storage facilities. It appears that uniform market practices and introduction of grades and standards are the two most outstanding needs for the development of co-operative sale in tobacco.

The methods of assembling and sale differ very widely from one area to another, even in the same province, and it would be best to describe these in brief as operating in the principal producing areas.

(2) NORTH BENGAL AREA.

In the principal tobacco producing areas of *North Bengal* the growers generally sell their tobacco in a semi-dried condition. The sales take place almost invariably in villages where the produce exchanges hands, generally at the cultivator's holding or curing yard. During the harvesting season, buyers from different parts of Bengal, Assam and Burma assemble in the producing area and with the help of local *dalals*, many of whom own spacious warehouses for the final drying of the leaf, its sorting, bulking and packing, go from village to village, inspecting the produce and making purchases. These buyers, particularly those from Burma, stay with their *dalals* during their purchasing period. Sometimes the local *dalals* themselves make purchases on their own account. Samples are drawn from the bulk of the tobacco crop and inspected by the buyer with the help of the *dalal*. If the sample is approved of by the purchaser, the whole bulk is then generally examined to see if it conforms to the sample. If the lot is approved by the buyer, he offers his price to the grower *under cover*. The buyer, or the *dalal* on his behalf, clasps the hand of the grower *under cover* of a cloth and offers the rate by making signs on the palm of the hand of the grower. If the grower accepts the offer, the bargain is settled, but the price is not declared openly. After weighing, the produce is carted to the godown of the *dalal* where it is further dried, graded and packed in accordance with the instructions of the buyer. A major portion of the price is paid to the grower at the time of delivery of the produce, the balance being paid afterwards. The local *dalal* who is generally known to the grower stands guarantee for the payment.

(3) CHAROTAR AREA.

In the *Charotar* area of the Bombay Presidency, the growers sell all their tobacco in their own villages. In fact, the curing yard in the fields is usually the place where they dispose of their produce almost as soon as it is ready. Occasionally they have to wait for the customers for some time or in a few cases, they prefer to postpone the sale in the expectation of better prices. In such cases, the produce is carted to their houses for storage.

Since the quality of produce varies from village to village and often from field to field, the upcountry merchants who buy large quantities, usually prefer to visit the tobacco areas themselves or make purchases through their representatives. Sometimes, there is such a variation in quality from field to field that some of the upcountry merchants are often anxious to purchase the produce from certain selected fields year after year. These upcountry buyers arrive sometime during January to May and stay with their local *dalals*. These *dalals* in most cases are shrewd and experienced men possessing detailed information about tobacco crop in the

surrounding villages long before the crop is ready. Most of the villages in the *Charotar* area have one or more *sub-dalals* each, who are in most cases, themselves tobacco growers. The *dalals* mentioned above are not only mere commission agents, but several of them possess tobacco processing factories and they make purchases on their own account in anticipation of orders from outside buyers. A few of them have their own shops and *bidi* factories even in other provinces. In the usual course the *dalals* arrange purchases through their respective *sub-dalals* in villages. When the tobacco is ready for the market, the *dalals* rapidly move from village to village where they meet their respective *sub-dalals* who take them round from one field to another. The samples of produce are inspected and in case the *dalals* or the upcountry buyers are agreeable to purchase, the *sub-dalal* takes quotation from the grower *under cover* (see plate facing page 188). This is done in the same way as in Bengal. The rate asked for by the grower is then communicated by the *sub-dalal* to the *dalal* again *under cover*. The *dalals* are anxious to preserve secrecy in the hope of getting better prices from the likely upcountry buyers. Under the circumstances the *sub-dalal* alone knows the exact situation in his village, and he is therefore the man who holds the balance and is able to a certain extent to secure favourable terms for the *dalal* on the one hand and the cultivator on the other according to his own personal inclinations and interest. In most cases, however, the *sub-dalals* are anxious to please the *dalals* in the expectation of getting greater patronage.

After the purchases are made, the *dalals* generally send labourers with bags for packing the produce. If the labourers are not sent by the *dalal*, the *sub-dalal* arranges for them. The charges for packing and carting are paid by the purchaser. When the bags are filled and stiched, they are weighed by the *sub-dalal* in the presence of the cultivator who renders help in weighing. The bags are then transported to the godowns of the *dalal* (see plate facing page 189) or directly to the railway station for being despatched to the upcountry merchant as directed by the *dalal*. Usually, however, the bags are despatched directly to the upcountry merchant only when they desire to have tobacco powder in the form prepared by the growers. In a majority of cases, however, they prefer the *dalals* to prepare different quality mixtures by further drying and sieving, in which case the bags are carted to the *dalal's* factories where tobacco is sieved and different quality mixtures prepared according to the requirements of the upcountry merchant (see plate facing page 177).

A few growers sell their standing crop usually to other big growers or *sub-dalals* in their village. The practice is, however, not at all common. In such cases the cultivator has to harvest the green leaf and deliver it at the curing yard of the purchaser. The sales are made a few weeks before the crop is ready for harvesting. The risk of any damage to the crop during the interval due to frosts or untimely rain has to be borne by the cultivator, and in such cases the contract becomes null and void. The grower is also responsible for loss due to theft from the field.

(4) NIPANI AREA.

The practice of selling the crop while it is still standing in the field is the one most common in the *Nipani* area. It is estimated that about three-fourths of the tobacco growers of this area sell standing crop when it is about to be ready for harvest. The purchasers are *Mahars* (an important section of the *Harijan* community in the Bombay Presidency) and petty merchants. No written agreements are made. In some cases the crop is purchased for a lump sum, but the practice of fixing the rate of the estimated produce is getting more common. The price is almost invariably paid after the produce is sold by the *Mahars* or the petty merchant. The *Mahars* generally take the tobacco purchased by them to the weekly market at *Nipani*, filled in *mhots* (improvised bags made of *kambli* or coarse woollen blankets) or *bhods* (bags made by stitching two old gunny bags). These tobacco packages are then arranged for sale in the open space allotted by the local municipality for the weekly bazaar. The proportion of the farmers who bring their produce to this weekly market is very small. The sales at *Nipani* are made through *dalals*. Some of these *dalals* act as commission agents for the upcountry buyers and in that case they are known as "*arhatiyas*". It is important to note that most of these people act both for the sellers and the buyers in different transactions.

These *dalals* and the outside buyers attend the weekly market, examine the produce from the sample packages and try to make purchases by private treaty negotiating over the prices with individual sellers. After the purchases are made, the tobacco packages are carried by the seller to the godown of the *dalal* where they are weighed and paid for. Disputes at the time of weighing are very common as all the packages are not individually weighed and the weight of the total consignment is based on the weight taken of a few sample packages. The quality of the produce in all the packages is then compared with that of the sample package and in many cases there are disputes about the quality of the produce contained in different packages. These disputes are usually adjusted after higgling although the seller is at liberty to cancel the transaction. The seller, however, rarely does so, in view of the difficulty of finding a new customer or in the alternative to wait till the next bazaar day, that is, a week after. It is reported that these disputes are more common during days of falling prices.

The petty merchants buying standing crop from the growers do not take their produce to the weekly bazaar at *Nipani*. They usually sell their tobacco to upcountry buyers through *dalals* by private negotiations. In cases where this is not possible, the produce is sent to the *dalals* who then arrange for sale.

The remaining farmers sell their tobacco crop after curing. Here again the petty village merchant may be the buyer. In other cases the produce is sent to *dalals* for arranging a sale. In most of these cases the growers have taken loans from the *dalals* to whom they have to send their tobacco, in the normal course, for sale.

When the petty merchants or growers send their tobacco to the *dalals* for sale, a rent of 8 annas per month per cart is charged by the *dalal* for storing the packages in his godown. The *dalal* then arranges for the sale at a price agreed upon by the seller.

At Sangli, *chura* or *angad* (tobacco powder) is sold by open auction. The growers and petty merchants from villages take their tobacco packages to their respective *dalals* at Sangli where the packages are arranged in the *dalal's* godown in lots, each lot representing the produce of one seller. Every day during the tobacco season all the purchasers and *dalals* assemble at one place and then go from shop to shop where each lot belonging to an individual seller is auctioned separately. The shops are visited by turns and serially. On one day the auction begins at the westernmost shop of the market and proceeds eastwards. Next day it begins at the easternmost shop and proceeds towards the west. If on any day all the shops cannot be finished (this happens during rush periods of the season) the auction is commenced at the point where it was stopped on the previous day. Most of the packages kept for sale are opened for inspection, if so desired by the buyers. When the buyers arrive at the shop, the *dalal* shows them the several lots offered for sale and then takes open bids. The highest bid is accepted provided the seller agrees. If he does not, then his lot is again offered for sale the next time the *dalal's* shop is visited by purchasers. But once the highest bid is accepted by the *dalal* on behalf of the seller, the latter cannot cancel the bid. At the time of giving the bids, it is understood by the purchaser that he has to take all the packages in a lot, if his bid is accepted. The buyers leave the shop only after all lots offered for sale in that shop are auctioned. The time for the auction is fixed from 9 A.M. to 3 P.M.

(5) GUNTUR AREA.

In the *Guntur* area of the Madras Presidency, almost all the sales take place in villages at the curing yards except in the case of growers who sell on contract to the Indian Leaf Tobacco Development Co., Limited. This company enters into bonded contracts with curers and growers in the district under which the latter are bound to deliver all their Virginia tobacco to the company only. According to the terms of this contract, the cured leaf has to be graded into five qualities on the basis of samples furnished by the company. The first four qualities consist of leaf and the last of broken leaf and scraps but not dust or sweepings. The grading can be done by the grower or under the supervision of a *mistri* in the company's premises. In the latter case the charges for the *mistri's* services are deducted from the price. The usual contract prices specified in the contract form are 9 annas for the first grade, 7 annas for the second, 5 annas for the third and 3 annas for the fourth and one anna for the fifth grade. It is reported that about half the area under Virginia tobacco is so bonded by the growers to the company, though since 1937 the number of growers entering into contract with the company appears to be on the decline on account

of competition from other buyers and the high prices prevailing for Virginia flue-cured tobacco.

There is much to be said in favour of the contract system as lending stability to prices and an assured market to growers at the time of planting. On that account it is worthy of extension. In points of detail, however, growers claim that there are difficulties in the present system. The company's representative, for example, is the sole judge of the grading standard adopted by the grower as specified in the contract form. This naturally causes some dissatisfaction among the growers, very few of whom are reported to have had the experience of their lots being accepted without regrading. Although in cases like this, differences of opinion are bound to occur, a system of sale which will have a common medium of understanding between the seller and the buyer under an impartial and expert guidance would certainly be an advantage. Even moderate minded growers who have a long connection with this system have expressed difficulties in having their grades accepted, and have shown a desire for expert grading on impartial standards. One grower with an intimate knowledge of the working put the whole problem in a nutshell by saying that "curing is all right but grading is never all right". However, it by no means follows that the contract system is working to the disadvantage of the growers. The tobacco trade which has added so greatly to the prosperity of Guntur district owes a large share of its existence to the system of purchase adopted by the Indian Leaf Tobacco Development Co. and all that can be said is that the grower has some reasonable complaints to make against the existing system. A fuller examination of the question requires consideration of the vital issues regarding the price abroad and the proportion of it that goes to the grower. On this point full facts have not been disclosed, but such evidence as can be gathered shows that the grower is getting prices ranging from 1½ annas to 7 annas for tobacco leaf which sells at 4 annas to Re. 1-2-0 per lb. in the foreign markets, that is, from 30 to 40 per cent. This is a point for consideration.

In addition to contracts entered by the Indian Leaf Tobacco Development Co. some local merchants from Guntur enter into oral and written contracts for purchase of ungraded leaf at specified prices, but such transactions are only small and occasional.

In the case of other buyers, the Virginia leaf is generally bought in villages in an ungraded form. The buying merchants tour from village to village, a broker having been sent in advance. At the grower's place, leaf bundles are opened and examined layer by layer from one side. This operation is called "Passing". Depending on the quality of sample and on the prevailing market rate, the buyer makes an offer which is never accepted immediately. It is usually the broker who makes the final settlement at a later date with the consent of the buyer and arranges for the carting of the material. If two or more buyer's tour the same village, the prices generally go up. The fixing of prices is always done by private

negotiation and never by auction. After the leaf bundles are carted to the godown of the buying merchant, some reduction in prices is always made on the ground that the general quality is inferior to the one seen at the time of settling the bargain. If the market is brisk, there are generally no disputes at the time of delivery and all buyers become less rigorous in the examination of tobacco bales brought to their godowns by the growers.

The sun-cured country tobacco in the Guntur area is generally purchased in ungraded form. If the Indian Leaf Tobacco Development Co. want to buy this type of tobacco, the growers cart the leaf bundles to the company's depots where they are examined and the price offered. If the price is accepted by the grower, the bargain is settled, otherwise he is at liberty to take back the tobacco. Other merchants tour from village to village, examine the bundles, fix the price, generally through brokers, and arrange for carting the material to their godowns at their own expense.

There is a small market at Guntur comprising about half a dozen adjoining godowns where the growers can stock their tobacco bundles and effect sales through the godown agents. The prices are fixed on the "*Passing*" of bundles by visiting merchants, by private treaty, but such sales are extremely few and during the last three years practically none have taken place in the case of Virginia flue-cured tobacco.

The biggest single assembling and purchasing organization in the *Guntur* area is the Indian Leaf Tobacco Development Co. who have an extensive organization with 9 branches in the district and a central depot for warehousing at Chirala. The company also makes advances to curers and owners of barns in the district and also distributes seedlings of Virginia tobacco to its contracted growers. Next in importance are the exporting merchants at Guntur dealing in country and Virginia tobacco. There are about half a dozen large firms engaged in this business in addition to 10 smaller ones.

(6) NORTH BIHAR AREA.

In the *North Bihar* area about one-fourth to one-third of the tobacco crop is sold by the growers while it is still standing in the field. The purchasers are usually local well-to-do cultivators who specialise in the curing of tobacco and who are also merchants. The price of the standing crop is fixed in terms of *katha* (1/22 acres). As a rule, no advances are made to the grower. In some cases, about 20 to 25 per cent. of the price may be paid to the grower on settlement of the bargain, but generally the prices are paid after the crop is harvested which is usually finished about 2 weeks after the bargain is settled. In case the crop is damaged while still standing in the field or there is a loss on account of pilfering, the price is reduced by the buyer.

Almost the whole of the remaining crop is sold by growers after curing in their own villages and holdings, to buyers who go round from village to village during the marketing season to make purchases

with the help of local commission agents. After purchase, the tobacco bundles are carried to the godown of the local agent who pays the grower within about 10 to 14 days after the delivery of the produce. The purchaser is usually required to deposit with the agent about 25 to 60 per cent. of the value of the produce in accordance with his credit. The balance is realised by the agent after consignment of the goods to the buyer by sending the railway receipt by value-payable post. In case it is not accepted by the buyer, the deposit is considered to be forfeited to the agent, and the railways have instructions to rebook the parcel to the agent.

A few growers, specially those situated near a market town, take their cured crop to the market where the sale is effected through commission agents (*arhatiyas*). The commission agents themselves may buy the tobacco if the grower is agreeable to the rate offered by them. Sales in markets are very few as compared with those that take place in villages.

Whenever the *desi* tobacco leaf is required for the manufacture of cheap cigarettes, manufacturing buyers make purchases by calling for samples in the first instance, or send out men to villages to inspect the produce on the cultivators' holdings and take samples. After inspecting the samples, the prices are offered by the buyer and if the growers agree to the price, the produce is carried to the buyer's godown where it is weighed and the payment made immediately in cash.

(7) OTHER AREAS.

In the *United Provinces* also the bulk of the produce is sold in villages either to the local merchant or village *baniya* or outside buyers who go from village to village during the marketing season. In markets like Farrukhabad, well-to-do growers and village merchants take their produce direct to the *kachcha arhatiya* with whom it is kept in store until sold. The *kachcha arhatiya* not only stores the produce but also acts as weighman and arranges for the disposal of the produce through other commission agents. These *kachcha arhatiyas* are licensed by the Farrukhabad Municipality and pay Rs. 12 per annum as licence fee. Sometimes the same man performs more than one function. For instance, the *kachcha arhatiya* may work as a commission agent and a broker as well. An isolated example of a few growers joining together for the purpose of sale in a market was observed during the course of marketing enquiries at Bhongaon in Mainpuri district where the growers were found to send their produce jointly to a commission agent at Muzaffarnagar for sale. Cigarette tobacco grown round about Saharanpur and Jhansi is sold by the growers to cigarette factories by private negotiations, but generally after sending samples.

The largest part of the local production in the *Punjab*, and the *North-West Frontier Province* is sold in villages to big wholesale and retail dealers through the village *baniyas* and the *dalals*. For his services, the village *baniya* gets commission from the buyer. If he gets anything from the seller, it is tobacco, but this gift is quite

optional. When the sale is effected through a *dalal* who operates in markets and who goes round from village to village with purchasers, a commission is given by the buyer to the *dalal* who gets nothing from the seller except a *chungi* (gratuity) of $1\frac{1}{2}$ to 3 seers of tobacco. A small quantity of tobacco is given by the seller also to the village *baniya* who acts as a weighman. Some of the growers round about big markets sell their tobacco in markets to or through the local commission agents.

Hazro in Attock district appears to be the only market in the *Punjab* where a regular market exists for the sale of tobacco. In all other markets, transactions in tobacco are settled at the shops of individual commission agents. At Hazro there are 6 markets, all owned privately. The proprietors of these markets have formed a pool and in accordance with the rules of the pool, these markets are divided into two groups of three each. One group sells the produce in the morning and the other in the evening of the same day. The group that operates in the morning on one day works in the afternoon the next day. Sales are made to local wholesale buyers who are about 150 in number and who further distribute the produce by exporting to merchants in other towns. Most of the tobacco that is assembled at Hazro is from the *North-West Frontier Province*, and majority of sellers are small merchants and dealers who have purchased tobacco in villages. Some of these dealers are themselves growers.

In the *Nizam's Dominions*, tobacco is mostly sold in villages to the local money-lenders or *sahukars*. The payment is made either in cash or the sale proceeds may be adjusted against any loan that might have been taken by the grower from the money-lender. The village money-lender collects the produce from the villages around him and sells it either in the local weekly markets or to wholesale dealers in a big assembling market where the sale is effected through an *arhatiya* or commission agent. A few well-to-do growers from near a big market also take their produce for sale in the market through the commission agents. In the southern tobacco area of the *Mysore State*, curing of tobacco is almost always done by professional curers who also happen to be village merchants or brokers. Some of these village merchants themselves grow some tobacco. The producers sell the green leaf about a fortnight or a month before it is ready for harvest. The prices are fixed on the basis of the number of plants. The village merchants or brokers buy the green leaf in several villages, cure it and then sell it generally to wholesale merchants at Ravandur which is the most important assembling centre in the southern tobacco area of the State. Similar are the practices observed in the northern tobacco area of the State, in the case of at least half the produce, the other half being cured by the growers themselves. The cured leaf is then sold by the growers through commission agents in markets like Sira and Goribidnur. Some of the growers also sell the cured leaf to the village merchants. Sira is the most important assembling centre in the northern tobacco area of the State where the tobacco leaf is sold on weekly fair days by auction and on other days by private negotiation.

(8) BURMA.

The bulk of the tobacco growers in *Burma* take advances from the local moneylenders against the tobacco crop. The money-lenders may be brokers, wholesale merchants or even the cheroot manufacturers. In granting a loan against the tobacco crop, the money-lenders create—as a first condition—a lien on the crop in their favour. The rate of interest also varies from one individual to another. In the case of small tenant cultivator, the loan is usually on a *hse-pe* basis, the amount borrowed being converted in terms of tobacco deliverable after harvest at a stated price, representing approximately from half to three-fourths of the price paid for the crop of the previous season. Immediately after the tobacco is cured, all the indebted growers deliver the leaf to their respective moneylenders in accordance with the conditions under which they might have taken advances. The money-lenders and a few growers who do not pledge their crop, sell the produce generally in villages to big wholesale merchants and manufacturers who go from village to village. It is customary for these buyers to make purchases through local brokers who in turn employ a number of village brokers. For their services, the local and village brokers get commission from the buyers. For the remaining produce the brokers in assembling centres like Mandalay and Rangoon offer a channel of disposal. The tobacco sent to them for disposal is stored free of charge until buyers may be found. In the absence of buyers at the assembling centres at the time when the grower or trader sends his produce, there are two courses open to him, one is to leave the stock with the broker with instructions to sell it later at a specified price, and the other is to sell it outright to him in his usual alternative capacity of a wholesale merchant. In the first case, it is usual for the seller to get advances from the broker against the stock left behind. The amount advanced, however, is seldom more than half the value of the stock at the current price and interest of 2 to 3 per cent. per month is usually charged for the loan. In case it is agreed to sell the tobacco to the broker, it is the usual practice with the brokers to pay from Rs. 3 to Rs. 5 for 100 viss below the current market rates.

C.—Marketing charges.

(1) GENERAL.

Tobacco as a rule passes through several hands before it actually reaches the manufacturer or consumer and expenses are incurred at different stages in the process of assembling and sale of grower's tobacco. In all the tobacco growing tracts, the market charges are levied either on the basis of weight or on the prices realised. Even when the grower sells his tobacco in his own village, his market expenses are by no means small in all the areas ; for example, in the *Charotar* area where almost invariably sales of grower's tobacco take place in villages, the average cost of marketing incurred by growers, in accordance with the farm economics investigations conducted by the Bombay Department of Agriculture in 1934-35 to

1936-37, comes to about Rs. 1-10-0 per maund. It may be significant to note that in accordance with these investigations the average out-of-pocket expenses of the grower on the cultivation of tobacco, i.e., on material, equipment, land revenue and rent, bullock labour, hired manual labour and marketing services came to about Rs. 68 per acre out of which the cost of marketing alone amounted to about Rs. 12 per acre or 18 per cent. of the total.

The market charges for the various items, which will be discussed later, vary not only from one district to another in the same province, but also from one commission agent to another in the same market. It is only at the bigger markets like *Nipani* and *Guntur* that the commission agents levy charges which are comparatively uniform. But even in these, distinction is made between the well-to-do growers and other cultivators, because the former visit the commission agent's shops more frequently and the commission agents are more anxious to keep their custom by charging them more equitably. The market charges are payable both in kind and cash. In most areas, the grower, as a rule, has no correct knowledge of the numerous deductions in gross weight and prices which are made in the various markets mainly by usage. Apart from the fact that there are extremely few markets where the grower can take his tobacco for sale, one of the chief causes as to why the grower prefers to sell his tobacco in his own village is the multiplicity and complexity of market charges found in all principal tobacco producing areas.

The main items of market charges are (*a*) commission or brokerage, (*b*) weighing charges, (*c*) charity, (*d*) allowance in weight, and (*e*) discount for cash payment. The commission is the remuneration of the commission agent who is called *dalal* or *arhatiya* or *adatya* in different localities. His function does not appear to be clearly defined so far as the tobacco trade is concerned. More often he combines in himself the functions of a broker, commission agent, warehouseman and wholesale merchant. The commission is payable usually both by the seller and buyer. Charges for weighing tobacco are invariably paid by the seller usually in cash and sometimes in kind.

In all the areas, a charge is levied on account of charity in one form or another. It goes under different names in the various parts, for example, *dharamadaya*, *dharmau*, *thadronji*, *goushala*, *pinjrapole*, *pathshala*, *anathalaya*, etc. The purposes for which charities are collected may appear to be laudable, but it is highly problematical whether they are fully utilised on the objects for which they are collected. Besides, the parties who make the payment towards charity do not appear to gain any advantage from it nor do they have any hand in the disbursement of the charity fund. Charity is usually collected in cash from the seller or buyer or from both.

At the time of making payment for the sale of his produce to the seller, it is the custom in many markets to deduct a discount from the total sale proceeds before payment is made to the seller. The

amount of this discount may be as low as 4 to 6 annas to as high as Rs. 15 for every Rs. 100 of the gross sale proceeds. There are several deductions in weight which go by different names in various parts of the country. In addition, there are several other miscellaneous charges, like the Merchants' Association Fund and Boarding House Fund at *Nipani*, *paghadi* or gift in the *Charotar* area, *baisari* and *dudhkhowa* in *Bengal*, etc. These market charges are extremely variable from one province to another, and in many cases complicated. As such, there is no comparison between the market charges of one province with those of another. Under the circumstances, it would be advisable to discuss in brief the system of levying market charges from the sellers and buyers in the principal producing areas.

(2) NORTH BENGAL AREA.

In this area, the *dalal* who arranges the sales in villages, gets a commission only from the buyer but nothing from the seller. The rate of actual commission charged to the buyer depends on his relation with the *dalal*. From the Burmese buyers a commission of 6 annas per maund is charged. The Burmese buyers are generally provided by the *dalal* with a separate house to live, in addition to many other privileges. Besides, they get from their respective *dalals* some cash present at the time of leaving the producing area, and this may amount to 1 to 2 annas per maund on the purchases made. In other cases, the rate of commission is 4 annas per maund including free board provided by the *dalal* to the buying merchants. In cases where the buyers have purchased direct from the growers and are anxious to store their purchases with the *dalal* for a short time before despatch, a commission of 2 annas per maund is charged which then virtually becomes a storage charge.

The grower as a seller, however, has to pay several allowances in kind to the buyer. The normal unit of sale is usually a bulk of tobacco weighing about 20 maunds. The seller has to give to the buyer a sample of 3 seers which approximately comes to about $2\frac{1}{2}$ *chhatanks* per maund. If the buyer purchases the lot the sample is allowed to be retained by him free of cost. At the time of weighing, a few bundles about 5 seers in weight are taken out for the weighman to sit on. This is called *baisari*, and is taken away by the buyer free of charge. An allowance for shrinkage in weight (*dhalta*) is taken by the buyer and this amounts to about 25 seers for every 20 maunds. At the time of the delivery of the produce, the buyer usually does not take away the tobacco stock purchased by him, until some extra leaf is given to him free. This extra leaf varies from one buyer to another and also from one grower to another and is called *hat-tola* which means an offering at the time of delivery of the stock. Again at the time of final settlement of accounts and payment to the grower, the buyer demands a present called *mangon* or *dudh-khowa*. This is usually calculated at about 2 to 5 per cent. on the gross value and deducted from the sale proceeds due to be paid to the grower.

(3) CHAROTAR AREA.

The number of market charges in this area is not only large but also complicated. A maund in *Charotar* normally consists of 40 local seers of 1 lb. each. The market charges incurred by the grower consist very largely of allowances in kind. At the time of weighing, 1 seer per bag is taken as *naman* or greeting. While weighing, the fractions of a seer are ignored. Two seers are deducted as weight on tare (*bardana*), though the actual weight of the gunny bag ranges from $1\frac{1}{2}$ to $1\frac{3}{4}$ seers. After filling in the bags an odd quantity left over from the heap of the grower's tobacco is taken away as sample. After making all these allowances the weight is then calculated and this becomes *kachcha* weight. The weight in *pakka* maunds is then calculated from the *kachcha* after making further allowances for the different types of tobacco. For *Lilvo* tobacco a maund is taken to be equal to $42\frac{1}{2}$ seers, for *Lal* 43 seers and for leaf bundles, *Khakri* and *Khutan*, the maund may be taken at anything between 45 and 48 seers, though the actual local maund is only 40 seers. It is from these varying weights of a maund that the *pakka* weights are calculated from the *kachcha* weights. The extra weight is reported to be taken on account of possible shrinkage. After calculating the *pakka* weight a further deduction in weight is made at the rate of $\frac{1}{4}$ to $\frac{1}{2}$ lb. per local maund. Loss due to possible leakage in transit is considered to be the justification for the origin of this *labh*. The total value of the tobacco is then calculated for the final *pakka* weight at the settled price. From the figure of this value, the following deductions are again made :—

- (i) *Vatav*.—The origin and the significance of this will be discussed later, but it may be stated at this stage that the *vatav* was intended to mean a discount for making cash payments to the grower immediately after sale. Immediate payments to farmers for the tobacco weighed out by them are, however, practically unknown in the *Charotar* area. The village *sub-dalal* gives an undertaking to the grower of paying the sale proceeds within a specified period, which may extend to anywhere from one week to six months or even more in rare cases. It appears, however, that in a majority of cases payments are made within about a month. However, *vatav* is now taken from all the growers irrespective of the period that intervenes between the sale and payment. The rate of this discount varies from 2 to 15 per cent. in different villages, and also from one year to another in a few villages, so that in extreme cases the growers may have to pay as many as Rs. 15 on account of discount for every 100 rupees worth of tobacco sold by him. This discount is shared between the village *sub-dalal*, the local *dalal* and the buyer. The village *sub-dalal* usually gets one per cent. of the value of the produce as his share of *vatav*, while the amount of the share of the *vatav* given to the buyer depends upon the promptness with which he makes payments for his purchases.

- (ii) After deducting the amount of *vatav*, annas and pies from the remainder are eliminated to round off the final figure into rupees.
- (iii) *Paghadi*.—The village *sub-dalal* while making final payment to the grower deducts about 4 annas to Rs. 2 as his *paghadi* or gift. This amount depends on the size of the transaction and relations between the grower and the *sub-dalal*.

The purchaser has to bear the following charges :—

- (i) *Dalali* or commission of the *sub-dalal*—1 anna per maund ; (ii) charity or *dharamdaya*—1 pice per maund. This is usually utilised in the villages concerned for common local purposes, such as repair of village roads, wells, tanks, temples, etc. ; (iii) *bardana* or the cost of gunny bags ; (iv) string for stitching the bags which is usually charged at about $\frac{1}{2}$ pice per bag ; (v) labour for filling in the bags at about $\frac{1}{2}$ anna per bag ; (vi) carting charges according to the distance to the railway station ; (vii) *marfat* or forwarding agent's charges which come to about $\frac{1}{4}$ to $\frac{1}{2}$ anna per bag, sometimes even less ; and (viii) *dalali* of the local *dalal*, which may come to $1\frac{1}{2}$ annas per bag, though it is understood that several *dalals* are content with the amount of *vatav* they retain and as such do not charge any *dalali* or commission to the buyer.

The variations in these deductions in weight and charges are so numerous and complex that it will hardly be possible to present all of them with their details accurately without further intensive investigations from village to village. One broad fact that has emerged out as a result of survey is that there are numerous deductions in weights and several allowances in cash and that these differ from one locality to another and even from village to village.

(4) NIPANI AREA.

The position in the *Nipani* area is better. In the case of sale of standing crop in villages no market expenses are incurred by the growers. In the *Nipani* market, the following market charges are recovered :—(i) *dalali* or commission—3 pies per rupee ; (ii) labour for loading and unloading—8 annas per cart of 16 bags or 10 *bhots* (packages) ; (iii) charity—1 anna per cart ; (iv) merchants association fund—1 anna per cart ; and (v) students' boarding house fund at 1 anna per cart.

Interest is charged to the seller at the rate agreed upon if he has taken an advance from his *dalal*. The *dalal* or *arhatiya* who acts on behalf of the buyer recovers his charges from the buyer at the following rate :—

Dalali—1 anna per maund.

Labha or allowance at the rate of Rs. 1-4-0 per cent.

Charity— $\frac{1}{4}$ anna per bag or $\frac{1}{2}$ anna per *bhot*.

For making the payment in cash within a specified period the buyers are allowed a certain discount which finally has to be paid by the seller. If the payment is made by the buyer within 4 days after delivery he is allowed 4 per cent. discount and if within 15 days, 3 per cent. If he pays within 2 months, a smaller discount may be permitted, but if the payment is made after 2 months, no allowance is given.

In addition, certain allowances are given to the buyer. Two seers are deducted for every cart-load of tobacco. Further, $2\frac{1}{2}$ seers per bag are allowed on account of tare and moisture. If the tobacco is packed in *bhats*, this deduction is 5 seers. If the tobacco is stored in loose condition and is reasonably dry, only an allowance for tare is made and not for moisture at the rate of $1\frac{1}{2}$ seers per bag and 3 seers per *bhot*.

(5) GUNTUR AREA.

The rate of brokerage for village sales in the Guntur area varies from one rupee for Country tobacco to two rupees for Virginia tobacco per candy of 500 lb., the exact amount varying with the individual and his relation with merchants and brokers. In addition, most of the villages have got their own *mamools* and charities, the rate of which varies from two to four annas per candy. Many purchasers are reported to make deductions at the time of weighing to the extent of 10 lb. per candy and also charge 4 annas per candy for weighing, though the practice is not uniform. If the grower brings his leaf for sale in the Guntur market which consists of 4 or 5 adjoining godowns, as explained earlier, the following charges are taken for every candy of 500 lb. of Country (Natu) leaf :—

	Rs. A. P.
Commission to godown merchant ..	1 0 0
Unloading charges ..	0 1 0
Arranging for inspection ..	0 1 0
Samples, about 2 lb. ..	0 2 0
Charity and temple ..	0 3 0
Weighment ..	0 1 0
 Total ..	 1 8 0

(6) NORTH BIHAR AREA.

When standing crop is sold, no marketing expenses are incurred. Even when the grower sells his crop after curing on his own holding, he has no specific marketing charges to pay. It is understood, however, that the purchaser takes much more by manipulating at the time of weighing. Weighing of tobacco in villages is done on *dhari* basis, 4 *dharis* making one local maund. The weight of a *dhari* varies from one area and village to another and even in the same village, the purchasers change the weight of a *dhari* in accordance with the moisture contents of the tobacco leaf. Ordinarily, the

weight of a maund is 40 seers, one seer being equal to 80 tolas. But the weight of the local maund of tobacco taken by the buyer from the grower generally varies from 52 to 56 seers, or sometimes even 60 seers. In addition, the weighman takes a considerable amount on the pretext of keeping the count of weightment. For every maund of tobacco leaf he keeps away one bundle of leaf which he takes as his remuneration for weighing. The weighman, besides, gets from the purchaser about a seer of tobacco per *ganth* (a bundle weighing 4 maunds). The purchaser has to pay for the boarding expenses of the *dalal* or *arhatiya* during the time the former is out with the latter in villages for making purchases. Besides, the *dalal* or *arhatiya* gets from the buyer 2 to 3 seers of tobacco and a commission which though not fixed, comes to about 2 annas per maund.

With regard to sales in markets like Patna and Dalsingsarai, it appears to be the custom in most markets that the *dalal* receives commission both from the buyer and the seller. At Dalsingsarai, for example, the rates of commission paid to *dalal* are 3 pies per rupee by the seller and 3 pies per rupee by the buyer. Three pies per maund are charged for weighing to the seller. In addition, there are 2 types of charities. One anna per transaction or per Rs. 100 of the value of transaction is charged both to the buyer and seller on account of *gowshala*. Charity on account of *pathshala* (school) is taken at 6 annas per transaction from the seller and one anna per transaction from the buyer. Similar are the market charges in other assembling centres with small local variations.

(7) OTHER AREAS.

In the *United Provinces* the market charges at Farrukhabad are as below :—

- (i) Allowance in weight of *chhoot*—1 seer per local maund of 55 seers.
- (ii) Unloading charges—2 annas per cart.
- (iii) Weighing and commission—6 pies per rupee.
- (iv) *Muddat* (discount)— $2\frac{1}{2}$ annas per hundred rupees.
- (v) Writing charges to *Munshi*—1 anna per consignment.
- (vi) Charity, sweeping, etc.—1 anna per cart.
- (vii) *Tari-jhari* or allowance in kind to *kachcha arhatiya*— $\frac{1}{4}$ to $\frac{1}{2}$ seer per cart.

In areas like Jaunpore, Agra, Jhansi, Badaun, Bareilly, Meerut, etc., where the buyers purchase directly from the growers in their villages through the local commission agents, the market charges consist almost entirely of brokerage or commission. These commission charges were found to be 8 annas to 1 rupee per hundred rupees at Agra, 1 anna per maund at Jhansi, 2 annas to 4 annas per maund at Badaun, 1 rupee per hundred rupees at Bareilly and Jaunpore and 6 pies per rupee at Meerut. In addition, the growers always give a certain quantity as *dhalta* or allowance in weight according to the customs prevailing in different parts of the province. This extra weight varies from 1 to 10 seers per sale.

In the case of village sales in the *Punjab*, the village *baniya* or *dalal* who effects sales, usually gets 3 to 6 pies per rupee as commission from the buyer. The seller is not required to pay anything, but generally he gives 1½ to 3 seers of tobacco by way of gift to the village *baniya* or *dalal*. In the Hazro market, the seller pays a commission of 2 annas per maund. The buyer also pays the same rate of commission and in addition 3 pies per maund on account of charity. In other markets of the *Punjab*, the charges vary from one place to another. In some markets, market charges are recovered only from the seller while in others both from the buyer and the seller. The charges also vary in the same market from one commission agent to another. Thus, in Lahore, while some commission agents charge 3 pies, others charge 6 pies per rupee as commission to the seller. The following are the market charges at Ferozepur :—

Paid by the seller.

- (i) Commission—1½ annas per maund.
- (ii) Weighing charges—9 pies per maund.
- (iii) Brokerage—6 pies per maund.
- (iv) *Dharmau* or charity—6 pies per hundred rupees.
- (v) Discount for cash payment—3 pies per maund.
- (vi) Terminal tax—4 annas per maund.

Paid by the buyer.

- (i) Commission—1½ annas per maund.
- (ii) Brokerage—6 pies per maund.

In the *North-West Frontier Province*, the seller pays to the commission agent a flat charge which is locally called *dharat* and which covers all miscellaneous market charges like commission, weighing and storage charges. This *dharat* charge varies from 8 annas to 1 rupee per maund according to the credit dealings of the seller with the commission agent. If he takes an advance of money from the commission agent he pays 1 rupee per maund as *dharat*. In other cases the rate of *dharat* is 8 annas per maund. The buyer pays 1 anna per maund (108 lb.) as weighing charge and nothing more.

The market charges in *Nizam's Dominions* range from Re. 0-2-6 per maund at Gulberga to Re. 0-5-6 per maund at Bidar. At Hyderabad, the charge comes to Re. 0-4-10 per maund while at Warangal the charges total to Re. 0-2-9 per maund. This charge includes commission, weighing, charity, local fund and toll tax. In the Ravandur market of *Mysore State*, the commission paid by the buyer usually comes to 4 annas per maund of 32 lb. There do not appear to be any other charges. In the Sira market, the commission agent gets commission both from the seller and the buyer. The commission paid by the seller is half an anna per rupee, while the buyer pays a commission of 1 anna per maund of tobacco purchased. In addition, the seller has to pay *rusoom*, representing contingent expenses, *dharma* or charity and *chintalu* or weighing charges. Contingent

charges are 2 annas per transaction while the charity charges come to half the amount paid for *rusoom*. Weighing charges are 3 pie per bundle or 4 annas per cart. Besides, a cash discount is also taken from the seller. In case the sale proceeds have to be paid immediately, this cash discount is charged at the rate of 8 to 10 annas per cent. which goes to the commission agent if the buyer does not pay the amount within 7 days. If the buyer makes the payment within the stipulated period of 7 days, he gets the benefit of the cash discount.

(8) BURMA.

In the village sales, it is customary for big buyers to make purchases through local town brokers of the producing areas and these in turn employ a number of village brokers. From the buyer the town broker gets brokerage at the rate of 8 annas per hundred *viss*. This he shares with his village brokers. The seller has to pay nothing. In markets like Mandalay, the rate of brokerage is 1 rupee per basket (100 to 110 *viss*) to the seller and 8 annas to the buyer. In Myingyan, brokerage is Rs. 1.8-0 to Rs. 2 per basket payable by the seller. The buyer pays nothing.

(9) SUMMARY.

The statement in Appendices LIX and LX shows the average market charges (excluding the cost of packing and transport) as paid by the sellers and buyers for every hundred rupees worth of raw tobacco sold in (i) villages, and (ii) markets. The following figures show the average total merchandising charges in the five principal tobacco producing areas of India :—

Average total market charges per hundred rupees worth of raw tobacco in the principal producing areas.

	North Bengal.	Charotar.	Nipani.	Guntur.		North Bihar.
				Virginia.	Natu.	
Village Sales—						
Paid by seller ..	5 6 0	14 9 0	..	3 8 6	4 12 6	0 13 1
Paid by buyer ..	2 6 0	0 10 0	..	..	..	1 12 1
Total for sale in villages	7 12 0	15 3 0	..	3 8 6	4 12 6	2 10 1
Sales in Markets—						
Paid by seller ..	..	..	10 9 10	4 0 4	5 7 0	3 5 10
Paid by buyer ..	..	..	1 12 6	..	..	2 8 1
Total for sale in markets	..	..	12 6 4	4 0 4	5 7 0	5 14 1

It is obvious that the highest market charges are incurred in the *Charotar* area followed by the *Nipani* area. In village sales, the grower in the *Charotar* area pays, in kind and cash, nearly Rs. 15 for every hundred rupees worth of tobacco sold by him and in a few cases this charge may even exceed Rs. 20. The marketing expenses incurred by the growers in the *North Bengal* and *North Bihar* are only 38 per cent. and 6 per cent. respectively of that paid by the *Charotar* grower. In the *Guntur* area, the grower's marketing expenses per hundred rupees worth of tobacco are Rs. 3-8-6 for *Virginia* and Rs. 4-12-6 for *Natu* when sold in villages as against Rs. 4-0-4 and Rs. 5-7-0, respectively, when sold in the *Guntur* market.

It is clear from the figures given in Appendix LIX that in village sales, apart from *Burma*, the lowest expenses are incurred in the *North Bihar* area where the total merchandising charges for every hundred rupees worth of tobacco, come to only Rs. 2-10-0, as against Rs. 15-3-0 in the *Charotar* area, Rs. 11-4-0 in the *Delhi* province, Rs. 7-12-0 in the *North Bengal* area, Rs. 4-12-6 for *Natu* tobacco and Rs. 3-8-6 for *Virginia* leaf in the *Guntur* area and about Rs. 2-11-0 in the United Provinces and the *Punjab*. In the *Charotar* area, over 52 per cent. of the marketing expenses are incurred in respect of several allowances in weight and another 43 per cent. in respect of discount both paid by the grower. The buyer, therefore, pays hardly 5 per cent. of the total marketing expenses. In the *Delhi* province, the value of allowances in weight comes to 7.5 per cent. of the gross sale proceeds as against 1 per cent. or less in the United Provinces and the *Punjab*, and 2 to 2.5 per cent. in the *Guntur* and *North Bengal* areas. In *North Bihar*, there does appear to be a regular system of giving allowances in weight, though it is reported that the buyers take larger quantities by the manipulation of weights and scales. Commission appears to be charged to the growers only in *Guntur* and the United Provinces, while the buyers are charged commission in *North Bengal*, *Charotar*, *North Bihar*, *Punjab* and *Delhi*. In *Burma* the marketing expenses in village sales appear to be the lowest and consist of commission charged only to the buyer.

With regard to sales in markets, the merchandising expenses in the *Nipani* area are the highest being nearly 12.5 per cent. of the gross sale proceeds out of which over 10.5 per cent. are paid by the seller. Allowances in kind account for a little less than half these charges, while commission and other allowances to *dalals* account for over one-fourth. In the *Guntur* market the total charges come to 4 to 5.5 per cent. of the sale proceeds, all paid by the seller. Allowances in weight come to two per cent. and a quarter, while commission ranges from 1.4 per cent. in the case of *Virginia* to 2.3 per cent. for *Natu*, on the gross sale proceeds. In *Bihar*, the average expenses come to a little less than 6 per cent. of the sale proceeds of which over half are paid by the seller. It is noticeable that in spite of the fact that the *Punjab* is not an important tobacco producing province, the marketing expenses come to Rs. 10-11-7 per hundred rupees, out of which the seller pays Rs. 7-7-1. Brokerage and com-

mission account for over 60 per cent. of these charges, while charges on account of terminal tax come to about 31 per cent. In the United Provinces the average expenses come to Rs. 6-5-5 per cent., all paid by the seller. Of these, the municipal taxes come to Rs. 1-8-0, allowances in weight Rs. 1-12-0 and commission and brokerage Rs. 2-0-10. The market charges in Hyderabad appear to be the lowest among the areas considered, being Rs. 2-12-6 per cent. of which commission alone comes to Rs. 2.

In *Burma* markets, there appears to be only one market charge, viz., commission, the percentage rate of which comes to about Rs. 3 charged to the seller and Re. 0-8-8 taken from the buyer.

D.—Organization and control of markets.

(1) PRINCIPAL ASSEMBLING AND DISTRIBUTING CENTRES.

Technically the word "market" has several meanings. It may mean just a meeting of persons for the purposes of buying and selling, or may represent a place where the buyers and sellers meet for the purpose of effecting exchange. A market may be a region or a country or it may simply mean an opportunity to buy and sell. It may also mean a body or group of people associated together for the purposes of buying and selling, as for instance, the various commodity and stock-exchanges. In ordinary language, however, a market means a place where the seller disposes of his produce to the buyer.

So far as tobacco is concerned, a market may be taken to mean, in ordinary language, a place where the growers sell their tobacco and where the merchants and warehousemen perform the assembling and distributing functions. As already explained earlier, the bulk of the tobacco crop is sold by the growers in villages, in fact on their own holdings, and as such the farmers' holdings form the main primary markets for the disposal of grower's tobacco. In view of the fact that a majority of the growers part with their produce on their own farms by private negotiations with the buyers, there is no regular assembling of produce in the producing areas, and as such, no daily buying prices are established in the primary markets. The result is that the grower does not know whether he has secured the correct market price for his tobacco.

The so-called tobacco markets are really secondary markets for assembling and distribution where merchants and warehousemen assemble tobacco purchased by them in villages. Even in these markets, there is no open place where the produce is assembled in large quantities as in the case of wheat and cotton markets. Generally the warehouse of a *dalal* or an *arhatiya* serves the purpose of a market. In certain areas there are no commission agents who deal exclusively in tobacco but they handle it along with other commodities like grain, sugar, betel-nut, spices, etc.

In *Bengal*, the principal assembling and distributing centres are Rangpur, Cooch Behar, Patgram, Jalpaiguri, Dinajpur, Hargoocha, Calcutta and Dacca. In all these markets the *dalal's* warehouse serves the purpose of a market-place. But these are of little use to the growers, as sales are generally effected in villages.

Similar is the case in the *Charotar* area of the *Bombay Presidency* where there are no regular and open markets for the grower's tobacco. The merchants, however, have their godowns and processing factories at several places in this area and these act as assembling and distributing centres. Such places of importance are Chikodra, Nadiad, Petlad, Mogri and Anand. In the *Nipani* area, Nipani, Sangli and Jayasingpur are the important markets for *bidi* tobacco. Nipani is situated about 25 miles from Kolhapur in the Belgaum district while Sangli is the headquarters of Sangli State. Jayasingpur in Kolhapur State is of comparatively recent origin. Every *dalal* or warehouseman operating in these markets has his own shop and godown and some of them even have their own *bidi* tobacco processing factories. It appears that among all the tobacco markets in India, Nipani is the only place where the local municipality has provided a common place where the village tobacco is assembled for sale once a week on Thursdays. On other week days and in the case of those who do not bring their tobacco for sale in the weekly market-place, the *dalal*'s godown serves as a market. At Sangli and Jayasingpur the sellers take their tobacco carts to the warehouses of their respective *dalals*, there being no alternative arrangement as at Nipani. *Bombay* city is an important assembling centre for tobacco exported to Aden and Dependencies.

In the *Madras Presidency*, Guntur is the largest assembling centre for cigarette tobacco. In fact, Guntur is the only place where cigarette manufacturers can purchase sufficiently large quantities of unmanufactured tobacco. Major part of the Virginia leaf in the Guntur area is purchased by the Indian Leaf Tobacco Development Co., Ltd., who have got extensive arrangements for buying and storage. The remaining portion of the leaf is assembled by individual merchants who export fairly large quantities to the United Kingdom, Japan and other countries. Except in the case of those who have entered into contract with the Indian Leaf Tobacco Development Co., Ltd., there are very few growers who take their tobacco for sale to Guntur market. Purchases are made entirely in the villages by the manufacturers and Guntur exporters. Palghat appears to be the largest assembling market for chewing tobacco, while Gudiyattam is the principal centre for pit-cured tobacco. *Madras* city is also an important assembling centre for all types of tobacco including that meant for export. The extent of total business in Madras is estimated at about 2 lakhs of maunds per year. In the southern part of the Presidency, the largest assembling centres are Erode, Trichinopoly and Madura. The markets at Rajahmundry and Cocanada are the principal assembling centres for *Lankas* tobacco. In all these markets the sellers are mostly merchants who have made their primary purchases in villages. The warehouse of each merchant or commission agent acts as a market. There is no common yard or space in any of these markets where a large number of sellers assemble their tobacco for sale.

Similar are the conditions in the *North Bihar* area. The more important centres for assembling and distribution are Muzaffarpur, Darbhanga, Dalsingsarai, Khajauli, Barh, Shahapur-Patoree and

Patna. In all these places the *arhatiya's* godown serves the purpose of the market. At Dalsingsarai, the Indian Leaf Tobacco Development Co. has got its purchasing depot, but it is understood that the purchases of Bihar leaf for cigarettes have largely declined during the past 3 or 4 years. Delhi is an important centre of trade for all types of unmanufactured tobacco excepting the cigarette, cigar and cheroot leaf.

In the *United Provinces*, the principal assembling and distributing centres are Farrukhabad, Benares, Lucknow, Biswan, Mainpuri, Budaun, Kampil, Meerut, Bahraich and Moradabad. At Farrukhabad there is a regular market for tobacco located at Lalsarai where as many as 132 *arhatiyas* operate. In all these markets, however, there is no common place for assembling tobacco and the *arhatiya's* warehouse serves as a market. In the *Punjab*, the local produce forms a small part of the total tobacco supplies in the province. In all the towns, excepting Hazro, no separate market exists for tobacco and business in many places is carried on in the shops of commission agents in grain markets. The principal assembling centres for the tobacco produced in the *North-West Frontier Province* are Peshawar and Hazro, the latter being far more important.

In *Hyderabad*, assembling centres for other agricultural produce also serve for tobacco. Large quantities are naturally assembled at those places where *bidi* and other tobacco products are manufactured. Hyderabad city, Narsingeer, Gulberga, Yadgir, etc., are large centres of *bidi* manufacture and as such act as large assembling markets for tobacco. The other assembling centres are Warangal, Bidar, Raichur and Latur. In all these markets tobacco is sold through an *arhatiya* at his godown by the village *sahukars* or money-lenders and petty dealers who make their primary purchases in villages. In *Mysore*, Ravandur is the most important assembling centre in the southern tobacco area of the State. There are about 3 important wholesale merchants and about a dozen more smaller merchants. In the northern tobacco area of the State, Sira is the most important assembling centre, the other markets being Rampur, Idgur and Alur. In all these markets, it is the village merchants who bring tobacco for sale through brokers. The shop or a godown of an individual broker serves the purpose of a market-place. The conditions in *Baroda State* are similar to those existing in the *Charotar* area.

In upper *Burma*, the principal assembling centres for the locally produced tobacco are Mandalay, Pakokku and Myingyan. The quantity of tobacco which annually passes through these centres is roughly estimated at 1,500 tons each for Mandalay and Pakokku and 300 tons for Myingyan. In all these centres there is no regular open market for tobacco and the warehouse of the stockist and commission agent is the place where the produce exchanges hands.

(2) ORGANISATION AND CONTROL.

It is therefore obvious that except the weekly municipal market at *Nipani*, all tobacco markets in India and Burma are privately

owned and as such there is very little organisation and control. In fact, it appears that of all the commodity markets, tobacco markets are the ones most disorganised requiring control measures almost immediately. The markets at *Nipani*, *Jayasingpur* and *Sangli* appear to be the only cases where attempts have been made for organisation. Merchants operating at *Nipani* established a Merchants' League in 1919 which fixed the units of sale, rates of commission charges, deduction to be made from the gross weight and other miscellaneous charges. The rates of discount for immediate payment as well as interest rates on overdues were also fixed by the League. The rules stipulate that no member of the League may deal with any person who has not cleared his accounts with another member of the League. The Merchants' Association at *Jayasingpur* was established in 1933. This Association also works on similar lines as at *Nipani*. The rates of deduction from gross weight, and the rules governing samples, discount, etc., are laid down.

Several attempts appear to have been made by the *Sangli Darbar* to regulate the *Sangli market*. A scheme for the regulation of market practices in the *Sangli market* was put into operation as an experimental measure in 1917. By 1921 the scheme was made permanent since it had shown good results during the trial period. In 1927 merchants and farmers made representations for certain charges and the *Sangli Darbar* appointed a committee to look into the matter and make recommendations. Accordingly a Commercial Crops Market Bill was drafted and presented to the *Sangli State Ryot Assembly* in its meeting in September 1933. The Assembly referred the Bill to a select committee and finally passed it in May 1935. But owing to strong opposition from the local merchants it failed to receive the assent of the *Raja Saheb* of *Sangli* and was therefore dropped. The commercial crops which were to come under the purview of the Bill were cotton, tobacco, jaggery, turmeric, groundnut and a few other commodities. The chief provisions of the Bill were (i) commercial crops could not be sold or purchased except at a licensed market-place ; (ii) each market committee was to consist of 7 members out of whom three were to be elected from among growers or nominated by Government from amongst the growers, two were to be licensed operators and one was to be a nominee of the local self-governing body. The Chairman of the committee was to be nominated by the State Government. The market committee could regulate storage of commodities in the market-place and was to make rules regarding trade allowances, units of weight, deduction in gross weight, arbitration of disputes, etc.

At present, the *Sangli market* is regulated to a certain extent by the rules made by the *Sangli chamber of commerce*. These rules stipulate the time of opening and closing of the market-place, the order of sales, the units of bargaining, conditions of sale, allowances in weight, etc. Rules have also been framed regarding the rates of discount and interest. It is thus obvious that in all the three markets, *Nipani*, *Jayasingpur* and *Sangli*, attempts towards organisation have been made more from the point of view of merchants operat-

ing in these markets rather than from the point of view of the growers or sellers.

In no other tobacco markets such attempts appear to have ever been made. Growers who prefer to sell in a market are extremely few, firstly because there are no regular open markets and the warehouse of the commission agent serves as a market, and secondly because sales in markets are, in many cases, followed by disputes. The most fruitful sources of disputes are the methods of weighing, quality variations in the lot offered for sale and the various deductions and allowances. The weighman, even in villages, generally tries to favour the buyer and in some areas, it is alleged, that buyers enter into contract or agreement with the weighman so that the latter might underweigh the produce. In the village, however, the grower is more free since he can more conveniently refuse to sell if the terms offered by the buyer are not favourable. But even here he cannot possibly afford to wait for a long time for another customer because the tobacco leaf is liable to deteriorate in quality in the absence of proper storage facilities. If he takes his produce to the market, he is very often forced by circumstances to accept the terms offered by the buyer, because the commission agent generally favours the buyer and it is inconvenient to take back the produce to the village. If he waits at the commission agent's godown for another buyer to come, he generally finds that the other buyer already knows the terms offered by the previous one. In the Nipani market, disputes regarding weighment and quality are very common and in case the seller does not agree to the terms offered by the purchaser, he is to wait till the subsequent market day, that is, for a week or to take his produce to a commission agent's godown and request him to effect a sale. The sellers, in the majority of cases, prefer to accept the terms of the buyers rather than take the produce to a commission agent's godown for sale. Sometimes different weights are used for buying and selling, as in the case of some markets in the United Provinces. The market charges and allowances in kind or cash are far too numerous and complicated, particularly in the two tobacco growing areas of the Bombay Presidency, and these vary not only from one district to another but also from village to village and from one commission agent to another in the same market. On account of variations in market charges and allowances, it is but natural that the growers prefer to sell their crop in villages where they are not subject to onerous market charges. In the *Charotar* area, where the rate of discount varies in different villages from 2 to 15 per cent. on the gross value, it is noticed that the buyers are generally not keen to make purchases in villages where the customary rate of discount is low. This therefore acts as a handicap for these villages. On the other hand, the visiting buyers have to be very alert and keep themselves in touch with the current rates of discount and market allowances in all the tobacco growing areas so as to be able to secure the largest advantage.

Except at Sangli, there is no system of open auction followed in any of the tobacco markets in India and Burma. At Sangli a part

of the *bidi* tobacco locally known as 'angad' or 'chura' is sold by open auction. In all other markets the sale is by private treaty.

On account of the fact that there are no organised and open markets and that the different types and qualities of tobacco have not yet been defined, market intelligence service with regard to supplies and prices is non-existent and difficult. In consequence, growers have to accept the prices offered to them by the buyers. It appears therefore that organisation of regulated and open markets at a few centres in the principal tobacco producing areas of *North Bengal*, *Charotar*, *Nipani*, *Guntur* and *North Bihar* would be advantageous. If such open and regulated markets are organised, it would be possible for the grower to know the extent of the market price realised by him and whether he has secured more or less than his neighbour. The practice might also encourage the growers to grade their tobacco leaf if they find that better quality fetches a higher price in an open market. The regulation of markets may be done on the lines adopted for the regulation of certain types of markets, e.g., cotton markets, in *Bombay*, *Central Provinces*, *Hyderabad State* and *Madras*. The control measures should include such items as the appointment of a representative market committee, standardisation of weights and methods of weighing as also of market charges and other allowances in cash and kind. All middlemen and buyers operating these regulated markets may be licensed by the market committee under certain conditions.

E.—Finance of assembling.

(1) VILLAGE *baniya* OR MONEY-LENDER.

The village *baniya* or money-lender is by far the most important source of borrowing for the growers. Advances for the growers' current financial requirements are mostly given on promissory notes in the case of substantial growers and on pledging land or jewellery in the case of others. The rates of interest vary in accordance with general credit of the borrower, the degree of his necessity, the nature of security offered and the general rate of interest prevailing in the locality.

Except in *Burma*, it is not the general practice for the village money-lender to give loans specifically against the tobacco crop. Money is advanced as a general loan and the rate of interest charged ranges from 15 to 24 per cent. per annum in the *North Bengal* and *North Bihar* areas, 9 to 12 per cent. in the *Guntur* area and 18 to 37½ per cent. in the *United Provinces*. In the *Charotar* area, the majority of the tobacco growers appear to be financially well off. A few of the lower class growers like the *dharalas* in this area take loans from the local money-lender on the security of lands or ornaments, the rate of interest charged being 12 to 15 per cent. per annum.

The method of borrowing specifically against the tobacco crop is very common in *Burma*, and, it is understood, that most of the tobacco growers take advances from the local moneylenders who are also tobacco merchants. The borrowing commences often enough

before the season has begun and continues in driblets from month to month as the cultivation progresses. The loans are of two main classes, those which carry conditions in regard to the disposal of the crop and those which, in this respect, are unconditional. The latter type of loans represent borrowings taken on the security of land, house and jewellery, and as such, are limited to the borrowers of substance. The rates of interest at Re. 1 to Rs. 2 per cent. per month is considered comparatively low. The form of loan which is more general is that taken from lenders who have an interest in the disposal of the crop. The lenders may be village brokers, traders or even manufacturers. In their simplest terms, these loans may take the form of advances bearing an interest at $1\frac{1}{2}$ to $2\frac{1}{2}$ per cent. per month, the lenders being given the option on the borrower's crop at current rates or in the so-called more friendly cases, an advance free of interest conditional on the borrower selling his crop to the lender at about Rs. 3 to Rs. 5 per hundred *viss* below the market rate. Conditions such as these, however, are enjoyed only by the cultivators of standing. For the small tenant-cultivator, finance is harder. Usually he takes loans on *hse-pe* basis, the amount borrowed being converted into tobacco deliverable after harvest at a stated price, which generally represents from half to three quarters of the price realised by the grower for his previous crop. Enquiries indicate that majority of tenant-cultivators habitually pledge part of their crop in this way at any rate. Apart from other factors, the conditions of the loan given to tobacco growers depend also on the quality of and demand for tobacco leaf produced in different areas. In the Shwegen *taung-bet-kan* area, for example, where the tobacco produced has a keen demand, every inducement is offered to the tobacco grower to take loans and pledge his tobacco. In the adjacent Shwegen *tan-hse* area, however, where the quality of the produce is inferior, there is less eagerness to advance money and hence the rate of interest is high being about Rs. 3 per cent. per month, with the additional condition that all the tobacco obtained shall be sold through the lender either at a fixed price or with a brokerage fee of Rs. 2 per hundred *viss*.

(2) MERCHANTS AND COMMISSION AGENTS.

The small village merchants are very largely financed by the commission agents and merchants from nearby large markets. The commission agents from large markets usually advance money to their clients up to about 50 to 75 per cent. of the value of the produce deposited with them at varying rates of interest, which is about 12 per cent. per annum in Bengal and Bihar and 9 to 15 per cent. in *Bombay* and the *United Provinces*. In the *Nipani* area, it is estimated that about three-fourths of the growers borrow money from the local petty merchants or from commission agents in the adjacent market centres. Such loans carry interest at about 12 to 24 per cent. per annum and in addition, there is an obligation on the part of the borrowers to sell their tobacco through the lenders. The large trade in chewing tobacco at Palghat in the *Madras Presidency* is maintained by a system of financing. The commission agents from Palghat advance money to visiting merchants and

village brokers with or without interest and the latter in turn lend out at higher rates varying from 12 to 24 per cent. per annum. Altogether about 8 lakhs of rupees per year are said to be so advanced. In the Guntur district the Indian Leaf Tobacco Development Co., Ltd., advances money to barn-curers at about Rs. 100 to Rs. 300 per head. They also arrange to supply coal for the working of flue-curing barns. A few of the other merchants at Guntur also advance money to barn-curers at about Rs. 300 per barn. There is, however, now a general tendency to do away with these advances either to the village broker or curer.

In the *Guntur* area the bulk of the export trade is financed by the exporters themselves, though a few of the exporters got advances from their London leaf brokers at about 6 per cent. per annum up to about 75 per cent. of the value of their leaf lying in the United Kingdom bonded warehouses.

In other areas, the upcountry buyers of unmanufactured tobacco generally remit the value of their purchases to their respective *dalals* and *arhatiyas* long after the receipt of goods. In a large number of cases, the local commission agents and upcountry buyers have accounts with each other which are finally settled usually once a year at the time of *Diwali*, i.e., in October-November. The growers and other sellers of tobacco, on the other hand, are anxious to receive payments as early as possible after sale. The local and village *dalals* who arrange for the sale of grower's tobacco give him an oral undertaking for paying the amount of sale proceeds within a specified period which may range from a week to even six months according to the custom prevailing in different tobacco producing areas except in the *Guntur* area where the cigarette leaf buyers pay the growers almost immediately or at most within a few days after sale. In *Bengal* and *Bihar* the growers are usually paid within about a fortnight while in other areas the sellers receive payment mostly within about a month after sale. These payments are generally made by the local *dalals* and *arhatiyas*, from their own funds long before the receipt of money from the purchasers.

The *dalals* and *arhatiyas*, therefore, shoulder great responsibilities of financing the assembling and distribution of this produce, as they arrange to pay the sellers their sale-proceeds within specified periods and, on the other hand, supply the produce on credit to their clients. In addition, they provide facilities in the form of godowns and processing factories. Thus the *dalals*, *arhatiyas* and local merchants have to invest large sums of money in their business. The required capital is raised by them out of their own savings or by taking loans against gold, promissory notes or real estate or by taking advances from purchasers. The amount of advance taken from a buyer depends upon his credit, the volume of his purchases and his connections with his *dalal*. In *Bihar* and *Bengal*, for example, many *dalals* take advances from their buyers to the extent of 25 to 60 per cent. of the value of purchases. An advance payment of a part of the price is considered essential from new and unknown purchasers or from buyers of doubtful credit and in such cases the balance is realised by the *dalals* by sending the railway

invoice of the consignment by value-payable post. In case the buyer fails to accept the railway invoice, the deposit amount is considered forfeited to the *dalal*. In many areas the interest on the capital invested by the *dalals*, *arhatiyas* and warehousemen to make payments to the sellers before the receipt of sale proceeds from the buyers, is conveniently passed on to the sellers in the form of discount. The rate of this discount may be as low as 2½ annas per hundred rupees in the Farrukhabad market of the *United Provinces* to as high as 18 per cent. on the gross value in the *Charotar* area. There is no fixed rate of discount, or *vatav* as it is locally called, in the *Charotar* area. It varies practically from village to village and even in the same village, it is not stationary for all the time. It is understood that the rates of *vatav* have steadily increased during the last 20 or 30 years. The rate of *vatav* varies from 2 to 15 per cent. or even to 18 per cent. Similar are the conditions in the *Nipani* area though the discount rates are much lower. If the *dalals* and *arhatiyas* pay the sellers within four days of the sale, a discount of 4 per cent. is charged. Afterwards the rate of discount is 3 per cent. up to two months. If payment is made after two months no discount is deducted. If the buyer makes payment for his purchases within the stipulated period of two months, he claims this discount. Such occasions are, however, few and as the majority of buyers pay long after the two months' period, the discount is usually retained by the *dalal* or *arhatiya*. In the Sangli market, the purchaser has to pay to the *dalal* the price of tobacco within a month after sale. If however, cash payment is required before this period of grace expires, a discount of Rs. 1-9-0 per cent. is allowed to the buyer. Similarly when the seller demands money within a month after sale, the amount is paid to him after deducting a discount of Rs. 1-9-0 per cent. A similar method of allowing discount is followed at Jayasingpur except that the rate of discount is Rs. 3-2-0 per cent.

(3) Shroffs.

Shroffs or indigenous bankers do not appear to play any active part in the assembling and distribution of tobacco.

(4) BANKS.

Banks usually hesitate to advance loans against tobacco, because of its highly combustible nature and the possibility of its deterioration in quality during storage. Besides, it is found difficult to assess the value of tobacco in the absence of any definite system of classification and dependable price data. However, some of the merchants borrow money from the local banks on personal security or against Government paper, or real estate. Thus, in Travancore, the *Jaffna* tobacco merchants who trade on commission basis and who have to make advance payments up to about 75 to 90 per cent. of the value of tobacco within 2 months of the receipt of tobacco, do so by borrowing from the local banks on personal security at about 12 per cent. interest. Some of the banks in Quilon allow overdraft facilities to tobacco merchants who deal with them regularly. Banks as a rule do not give any advances to tobacco growers.

(5) CO-OPERATIVE SOCIETIES.

The co-operative organisation has developed mostly along the credit side all over the country and the non-credit activities form a very small part of the co-operative movement in India. Co-operative societies have not so far taken any direct interest in the marketing of tobacco in any part of India and Burma, except to a small extent in the *Nipani* area.

In the *Nipani* area, the Belgaum District Central Co-operative Bank has made arrangements to give advances against tobacco stocks at *Nipani*. As will be explained later in the chapter on "Storage and Stocks", about 3 lakhs of rupees were advanced against tobacco stocks by this bank in 1935-36.

INTER-CHAPTER FIVE.

There is a striking absence of regular markets for tobacco in the producing areas. Not more than 10 per cent. of the produce is sold by growers in properly established markets. The big bulk of the crop is sold in the villages either standing in the field or after curing. At least three-fourths of the growers in the *Nipani* area, for example, and more than one-fourth in North Bihar sell their tobacco as a standing crop. Selling cured leaf on contract is, on the other hand, a common method in the case of Virginia cigarette tobacco grown in the Guntur area.

The market charges in the villages are scandalously high and very numerous. In the *Charotar* area of the Bombay Presidency for example, a grower pays in kind and cash about Rs. 15 on every Rs. 100 worth of tobacco which he sells and in some cases even more than 20 per cent. More than half of those marketing expenses are due to allowances and deductions in weight.

The so called tobacco markets are generally secondary markets for assembling and distribution where merchants and warehousemen bring tobacco purchased by them in villages. Even in such cases there is no one central place where the produce is collected in large quantities as happens in the case of wheat or cotton. Generally the warehouses of the *dalals* or *arhatiyas* serve the purpose of a market.

Nipani is apparently the only place in India where the local municipality has provided one common place where the village tobacco is assembled for sale once a week (Thursday). All other tobacco markets in India and Burma are privately owned and no attempt appears to be made for their organisation or control except at

Nipani, Jayasingpur and Sangli where trade and market practices are to some extent governed by the rules framed by the local merchants' associations.

It is essential that regulated and open markets for tobacco should be established at a few centres in the principal tobacco producing areas of North Bengal, *Charotar*, Nipani, Guntur and North Bihar.

Sangli, where at present a system of open auctions is in vogue, is the only place where attempts have been made to establish a regulated market for tobacco, but unfortunately owing to strong opposition from the local merchants, the Sangli Durbar had to drop the Commercial Crops Market Bill which it was proposed to introduce. It will be interesting, therefore, to follow the progress of the Madras Government in attempting to introduce regulated markets and open auction floors in the Guntur district. In this case, however, it would appear that the bulk of opinion, both growers' and merchants', is in favour of the proposal. Perhaps this may be associated with the fact that marketing expenses there are already comparatively low being only a little over 5 per cent. as compared, for example, with the charges at Nipani which amount to $12\frac{1}{2}$ per cent. That there is still room for reduction is apparent from the fact that the market charges in Nizam's Dominions appear to be only a little more than $2\frac{1}{2}$ per cent.

The provision of credit is a very important factor in the marketing of tobacco. Manufacturers and distributors who buy tobacco from or through the commission agents in the producing areas do not generally pay till long after the receipt of goods. Indeed in many cases the accounts are only finally settled once a year, at *Diwali* in October|November. The local *dalals* who arrange for the sale of growers' tobacco generally only give an oral undertaking to pay the full amount of the proceeds over a period ranging up to six months according

to the custom prevailing in the different producing areas. Growers generally have to wait about a month before receiving payment from the local *dalal* or *arhatiya*. In those cases where the *arhatiyas* or warehousemen pay growers before sale proceeds are received, the interest on the sums outstanding is passed back to the seller in the form of discount which may be as low as Re. 0-2-6 per Rs. 100 in the Farrukhabad market of the United Provinces, or as high as Rs. 18 per Rs. 100 on the gross value in the *Charotar* area.

Steps are, therefore, necessary to improve the facilities for financing the crop. *Shroffs* and indigenous banks do not appear to play any very active part in this business and joint stock banks usually hesitate to advance loans against tobacco because of the difficulty of assessing its quality and value and the possibility of its deterioration during storage. Two things are, therefore, essential, the systematic grading and standardisation of tobacco and the quotation of prices on the basis of those grades so that banks and others might know the value of the produce against which they would be expected to make advances, and the other is the provision of dry, rain-proof storage where temperature, humidity and insect damage can be controlled.

Co-operative societies have not so far taken very much direct interest in the marketing of tobacco except to a small extent in the Nipani area where, it is interesting to observe, the district central co-operative bank arranges loans against tobacco stocks, and about Rs. 3 lakhs were advanced in this way in 1935-36. This example seems worthy of study. No system of co-operative sale appears, however, to have been developed so far.

The question of finance seems to be even more acute in Burma where it is understood that most of the tobacco growers take advances from local money-lenders who

are also tobacco merchants and such loans bear interest at the rate of $1\frac{1}{2}$ to $2\frac{1}{2}$ per cent. per month.

The position is perhaps not much better in the tobacco areas of India although in those cases the money is advanced as a general loan and not specifically against the tobacco crop. The rate of interest charged varies from 15 to 24 per cent. per annum in North Bengal and North Bihar areas, 9 to 12 per cent. in Guntur and 18 to $37\frac{1}{2}$ per cent. in the United Provinces. These terms seem appallingly onerous and should be capable of being reduced by organised banking and better arrangements for storing and marketing.

CHAPTER VI.—CLASSIFICATION, GRADING AND STANDARDISATION.

A.—General.

It will be observed from what has been stated in the earlier chapters that in the absence of any definite system of classification and grading, the position of tobacco trade in India and Burma has become extremely confusing and unintelligible. Official price quotations are obviously of no commercial use in the trade between the producing and consuming centres. They are, however, apparently all that can be expected under the existing conditions of trade. In order to enable information to be published for the benefit of sellers and buyers, a dependable system of price quotations ought to be worked out. If this could be done, it would bring the producers and the consumers into closer contact. The existing system is such that the quality of the article in each type varies from one merchant to another. The factors that determine the quality are, however, well-known and it should be possible to define the various types, classes and finally the grades in accordance with these factors.

The advantages of grading are obvious. It helps in the collection and dissemination of market information, establishing more "orderly" marketing and "futures" transactions and saving the marketing and transport costs on useless materials. The adoption of standardised grades has a special advantage in tobacco trade. As is well-known a tobacco smoker is conservative with regard to his smoke and the trade of leading manufacturers depends to a large extent on the continuity of their standardised products from year to year. Violent fluctuations of quality are not, therefore, to the ultimate advantage of the parties concerned in the tobacco trade—the grower, the manufacturer and the smoking public. It may be, however, stated at the outset, that apart from the efforts being made since 1936 by the Central Marketing Staff in co-operation with the Provincial Marketing Staff, to standardise the grades of cigarette tobacco leaf, to which a reference will be made later, there are no standardised grades for any of the different types of tobacco produced in India and Burma as in other important tobacco producing countries like the United States of America, Rhodesia and Canada.

At the same time it may be observed that the problems of grading tobacco are extremely complicated and appear to be almost hopeless to the inexperienced. It appears that of all the agricultural products, tobacco requires the greatest degree of skill and knowledge in the matter of grading. Products like wheat, oilseeds and fruits are easier to grade by mere mechanical sorting according to size and by discarding foreign matter and defective products. Unlike other crops each leaf of tobacco has to be handled separately and the work of sorting and grading can only be done through long experience, practice and careful study of the factors of quality. Many of these

quality factors are extremely difficult to judge for the inexperienced, as for instance, colour, texture and strength. Besides, a particular quality factor which is of great importance in one type, may not be so in the case of other types. Thus, while lemon yellow colour is considered of paramount importance in cigarette leaf, it has absolutely no value, in fact, it would be a defect in tobacco intended for cigar, cheroot, *bidi*, *hookah*, chewing and snuff. The farmer who grows a particular type of tobacco and the merchant and manufacturer who deal in that type, however, know by their long experience and practice how to sort the leaf of that type into different qualities. So far as tobacco grown in India and Burma is concerned, such sorting practices adopted by growers, merchants and manufacturers are vague and not easily definable in the case of some types (e.g., *bidi* powders), while in the case of others (e.g., cigarette leaf) the factors of quality taken into account in sorting are fairly specific and capable of being standardised. As a first step towards grading and standardisation, therefore, it would be desirable to select only those types and classes in which the growers, merchants and manufacturers have made some progress in the matter of sorting according to some definite quality factors. It would be, however, desirable to discuss, in brief, the existing methods of classification and sorting adopted for the several types produced in the various parts of India and Burma.

B.—Present practices of classification and grading.

All commercial types of tobacco grown in India and Burma fall into 2 general groups, namely, *Nicotiana Tabacum* and *Nicotiana Rustica* and the big bulk of the crop may be simply classified as below in accordance with the present practices followed by the growers and traders.

Type.	Class.	Principal areas.
<i>Nicotiana Tabacum</i> —		
I. Cigarette ..	1. <i>Virginia</i> .. (a) Flue-cured. (b) Sun-cured.	Guntur, Mysore, Saharanpur Jhansi and Satara areas.
	2. <i>Country (Natu)</i> .. (a) Flue-cured. (b) Sun-cured.	Mainly in the Guntur area and to a small extent in Bihar.
II. Cigar ..	3. <i>Usikappal</i> .. 4. <i>Rangpur</i> ..	Trichinopoly and Coimbatore districts.
		Rangpur and Cooch Behar.

The quality characteristics of the principal types and varieties have already been described in the Chapters on Supply. Appendix LXI shows certain physical and chemical characteristics of cured tobacco leaf produced in India and Burma, based on the results of physical and chemical examination of several commercial samples of tobacco obtained from different parts.

(1) NICOTIANA TABACUM.

(a) *Cigarette leaf*—(i) *Virginia flue-cured*.—The most desirable quality factors of Virginia flue-cured leaf are bright lemon yellow colour, fine and silky texture like a thick handkerchief, good size, no blemish, mild strength, slow, regular and continuous burning character, white ash and pleasant or neutral aroma.

In the *Guntur* area the colour of the leaf ranges from bright lemon to reddish brown with fine silky and full to thin texture, the size being 12 to 18 inches long and 6 to over 9 inches broad. In the case of growers who contract with the Indian Leaf Tobacco Development Co., Ltd., to deliver leaf of different qualities at prices specified in the contract, the cured leaf is sorted into 5 grades as below :—

No. 1.—Leaves of bright lemon or golden yellow colour, good texture without any sponginess and other blemishes and with yellow veins.

No. 2.—Colour and texture nearly the same as in No. 1 but with greenish veins and small greenish patches.

No. 3.—Yellow with greenish and brown patches in places.

No. 4.—Leaves of reddish and green colour, not well cured.

No. 5.—Scraps and rejections but not sweepings or dust.

In the case of other growers, it is the usual practice to bale the leaf without grading, but after removing trash and spoiled leaves. The method of grading adopted by exporters varies from one merchant to another. The principle adopted is, however, the same, the grades being arranged from bright lemon yellow colour without any blemish to leaves with yellow colour with slight blemishes and finally to darker green and mahogany shades. They go under different names given by individual exporters as extra-light number one to three or extra-light, semi-light, and light brown. The purchase grades of the Indian Leaf Tobacco Development Co., Ltd., are not the same as those made for export. The company rearranges the purchased leaf into several grades in accordance with the requirements of its constituent manufacturing firms in India and England.

It is therefore apparent that the present practice of grading flue-cured leaf is based largely on colour and amount of blemish on the leaf surface. Texture receives the next consideration, while no sorting is done according to the size of the leaf. The same practice is followed in other areas, *viz.*, Mysore and Saharanpur.

The colour of the *Mysore* leaf ranges from bright lemon to green with fine, silky to thin and papery texture. The length of the leaf

is 10 to 18 inches and the breadth 4 to 12 inches. The Mysore Tobacco Company, Limited, sorts leaf into the following six grades, though the 1937 crop was sold in an ungraded bulk to manufacturers :—

- No. 1.—Leaf with bright lemon yellow colour and no blemish.
- No. 2.—Leaf with light yellow colour and no blemish.
- No. 3.—Leaf having bright or light yellow colour with small greenish or orange coloured patches.
- No. 4.—Same as No. 3 except that the greenish or orange coloured patches are larger.
- No. 5.—Leaf having green colour.
- No. 6.—Broken leaves, etc.

The leaf grown around *Saharanpur* has almost the same quality characteristics as that produced in the *Guntur* area. The few growers sort their leaf into 4 grades as below :—

- No. 1.—Leaf with lemon yellow colour, good texture and with practically no brown or dark spots.
- No. 2.—Leaf having almost the same colour as in No. 1 but with larger proportion of brown or dark spots or having slightly deep yellow colour tending slightly towards brown.
- No. 3.—Leaf with slightly inferior yellow colour with greenish tinge and having more spots than the leaf of No. 2 grade.
- No. 4.—Leaf having more green colour than yellow.

The small quantity of cigarette leaf produced in *Satara* district of the Bombay Presidency is inferior to that produced in other areas. The colour ranges from yellow to light brown, texture being medium to thick but fine. The size is small being 9 to 15 inches long and 5 to 10 inches broad. No systematic efforts are made towards sorting the leaf.

(ii) *Virginia, sun-cured*.—*Guntur* is the only area where sun-cured Virginia leaf is produced, though in rapidly declining quantities owing to the rising prices of flue-cured leaf during the past 3 years. The size of the leaf is the same as that of the flue-cured leaf, the colour ranging from light to dark brown. Exporters generally sort the leaf into three grades, viz., (1) Virginia red or light brown, (2) Virginia green or brown with green patches, and (3) Virginia dark or dark brown.

(iii) *Country (Natu), flue-cured*.—On account of the rise in the prices of Virginia flue-cured leaf the production of country (*Natu*) flue-cured leaf has been continuously declining during the last 4 years and has now practically reached a vanishing point. It is understood that with the rise in the area under Virginia flue-cured

leaf, country flue-cured tobacco will no more be produced in the Guntur area. It is not therefore worth discussing the quality factors and grading practices of this type of leaf.

(iv) *Country, sun-cured*.—The important quality factors in judging the country sun-cured cigarette leaf are the colour, texture and freedom from blemish.

The country (*Natu*) tobacco of *Guntur* is the most important for cigarette manufacture. The leaf is light to dark brown in colour, medium and pliable in texture, 10 to 18 inches long and 6 to 9 inches broad. It has mild strength and pleasant aroma. The exporters usually sort the leaf into three grades according to colour into light brown, brown and dark. Some of the leading exporters, however, adopt 4 or 5 grades like bright, light brown, light dark, heavy brown and heavy dark. Texture and blemish are next in importance. The country (*desi*) leaf from Bihar is about 15 to 18 inches long and 6 to 9 inches broad, yellowish brown in colour and medium in texture. It is mild in strength, but sometimes has an earthy flavour. Usually the middle leaves, called *murhan* of the *desi* tobacco are sold to manufacturers of cheap cigarettes. No further sorting of *murhan* appears to be in practice on the part of the growers or merchants though cigarette manufacturers further sort the leaf into 2 or 3 grades according to colour.

(b) *Cigar leaf*.—The quality characteristics desirable in cigar tobaccos are light to dark brown colour, thin to medium and pliable texture, good size, freedom from blemish, mild strength, slow, regular and continuous burning character, white ash and agreeable flavour. For wrapper purposes the leaf should be pliable with smooth and glossy appearance and thin veins and good length. Size is relatively unimportant for filler and binder purposes for which medium to thick textured leaves are considered tolerable.

The *Usikappal* leaf produced in the Trichinopoly and Coimbatore districts of the Madras Presidency is light to dark brown in colour, thin to medium and pliable in texture, about 18 to 24 inches long and 4 to 9 inches broad. No particular system of grading appears to be practised for this type of tobacco. The cigar manufacturers make their purchases on samples from known merchants who have experience of the qualities desired by the various manufacturing firms. After purchase the manufacturers generally sort the leaf in accordance with colour, texture and size or sometimes get the sorting done by merchants from whom they buy.

The small quantity of cigar leaf produced in the Rangpur area of the North Bengal is greenish to dark brown in colour, thin in texture, about 15 to 22 inches long and 6 to 9 inches broad. The leaf is sometimes sorted by merchants and manufacturers into four grades as below :—

No. 1.—Good sound leaf with brownish yellow colour and 20 inches and over in length.

No. 2.—Good sound leaf with brownish yellow colour and brown patches and 15 to 19 inches in length.

No. 3.—Good sound leaf with greenish brown colour and 12 to 15 inches long.

No. 4.—Any leaf without blemish and damage and below 12 inches in length.

These are grades used for wrapper leaf. For the filler and binder purposes, the leaf is sorted according to size and the extent of blemish and damage.

(c) *Cheroot leaf*.—For cheroot making a leaf with light to dark brown colour, medium thickness, medium to strong and agreeable flavour and strength, even burning quality and white ash is preferred.

The *jati* tobacco produced in North Bengal is greenish to dark brown in colour, medium in texture; 15 to 22 inches long and 6 to 12 inches broad. The leaf intended for export to Burma is first sorted by colour and then by size. For export to Moulmein, leaf with dark brown to almost black colour is preferred. This dark to black coloured leaf is further sorted into three grades according to shades of colour, the black coloured leaf forming the first quality, dark reddish brown the second and reddish brown the third. These leaves are sometimes further graded according to size, but this appears to be occasional. For export to Rangoon, leaves having yellowish brown colour with brown spots and patches are preferred. These leaves are usually sorted into four grades according to size and colour as below :—

No. 1 or *Chama*.—Leaf with brownish yellow colour with brown spots all over and above 15 to 22 inches long and 9 to 12 inches broad.

No. 2 or *Medi*.—The colour and size are the same as in No. 1 except that the brown spots are in patches only.

No. 3 or *Mixed*.—Narrow and thin leaf, 10 to 15 inches long and 5 to 6 inches broad with greenish brown colour.

No. 4 or *Mixed*.—Smaller leaves and rejections, greenish and dark brown in colour.

The sand leaves known as *bishpat* are separately harvested and cured. They are then sorted out into two grades according to colour, viz., light brown and greenish brown. The light brown *bishpat* of *jati* tobacco is sometimes used in the manufacture of cheap cigarettes.

The quality characteristics of *Usikappal* leaf produced in Trichinopoly and Coimbatore districts are the same as those mentioned under cigar leaf. The *Monnakappal* from Madura district is usually dark brown in colour, thin to medium in texture, 18 to 30 inches long and 6 to 12 inches broad. As in the case of cigar tobaccos produced in the Madras Presidency, no definite system of grading appears to be practised for these two classes of cheroot leaf, the manufacturers making their purchases mostly on the basis of samples.

After purchase either the manufacturers or the merchants on their behalf generally sort the leaf in accordance with colour, texture and size.

The *Burmese cheroot* leaf is greenish to dark brown in colour, thin to medium and pliable in texture, 15 to 30 inches long and 6 to 12 inches broad. For the *Kun-ywa-hse*, which is by far the most important variety, the grading of the leaf is based on a combination of size and quality. In this latter, thickness and body are the main considerations. The three chief grades are :—

No. 1—Hse-gyi.—Leaves thick and big with a full complement of brown spots on both sides of the leaf. Veins must be thin and the leaf elastic. This grade is further subdivided according to size into (1) *Hse-gyi-yaung*, (2) *Hse-gyi-hnasa-hman*, and (3) *Hse-gyi-hnash-pu*.

No. 2—Hse-lat.—As in No. 1, but leaves of smaller size.

No. 3—Hse-pa.—Leaves may be big or small, but are thin in body with few brown spots.

For the *Shwegen* and *Burmese Havana*, the grades are based mainly on the consideration of size as below :—

No. 1—Hse-gyi or *Ta-bat-gyi*.—Leaf about 10 to 14 inches long with fine and pliable texture to serve as first-class wrapper.

No. 2—Hse-lat or *Ta-bat-lat*.—Medium sized leaf about 18 inches long, medium in texture.

No. 3—Hse-gale or *Ta-bat-hto*.—Leaf about 12 inches long with medium texture, used as binder.

No. 4—A-sa-hse.—Small leaves about 6 to 9 inches long, used as filler.

(d) *Bidi leaf*.—The most important factor determining the quality of *bidi* leaf is the strength. A good *bidi* tobacco should give a strong but sweet and mellow smoke. The other important factors are colour and thickness. Orange to light greenish brown leaf with characteristic brown spots is preferred. The texture should be thick but not coarse so that the leaf may not break down to dust when being made into *bidi* powder.

The *bidi* leaf produced in the *Charotar* and *Baroda* areas is thick in texture but not coarse, 12 to 15 inches long and 5 to 9 inches broad. The *lal* tobacco is greenish yellow in colour with brown spots while the colour of *lilvo* leaf is more or less green with a light yellowish tinge. Brightness or lustre is considered to be an important consideration and dullness of colour is supposed to be a drawback. The *bidi* leaf produced in the *Nipani* area is stronger. The colour is golden yellow to orange, and light brown, sometimes with brown spots spread on the surface of the leaf which give the leaf an appearance of the skin of a panther. The texture is thick but not coarse, the size being about 12 to 18 inches long and 6 to 9 inches broad. No grading worth the name is done in both these areas. As

already described earlier in the chapter on "Preparation for Market", *bidi* tobacco is prepared by roughly pressing the dried leaves so that they fall into small pieces. Leaves from the main crop, *ratoon* crop and sand leaves are cured, crushed and sold separately. The coarsely crushed leaves, in which form the growers sell their tobacco, are further reduced to smaller sized flakes either by the assembling and distributing merchants or by *bidi* manufacturers. At the time of preparing these smaller sized flakes, the processors blend in varying proportions the *bidi* powders of different ages and quality which is mainly based on the strength and to some extent on colour also. Each processing merchant has his own blends which are designated by a number, as No. 80, No. 328, No. 151, etc.

The small quantity of *bidi* leaf grown in the *Mysore* area is yellowish brown in colour and medium in texture. The leaf is over 18 inches long and 3 to 6 inches broad. The leaf is sorted according to size, the middle and bottom leaves on the plant forming the *pindi* which is considered to be the first quality. The top leaves and broken leaves form the second quality known as *Mandwa Chour*. Sand leaves and leaves obtained from the *ratoon* crop constitute the third and the lowest quality locally known as *Taragu*.

(e) *Hookah tobacco*.—A thick coarse leaf, strong in flavour, is used for *hookah*. Other factors of quality like colour, size of leaf, etc., are considered relatively unimportant though a leaf with dark brown colour is preferred.

The quality characteristics of *jati* leaf produced in *North Bengal* have already been referred to earlier. When the *jati* leaf is intended for *hookah* or chewing no systematic sorting is done. As in the case of the *jati* leaf exported to Burma, a few merchants however sort the leaf in accordance with the strength, texture and colour.

No sorting or grading of *desi* leaf is done to any appreciable degree except to some extent in the *North Bihar* area, where sorting appears to be fairly widely practised by the growers and merchants in accordance with the position of the leaf on the plant. The main crop is roughly sorted after curing into three grades, *murhan* or middle leaves, *ranti* or top leaves, and *chhabua* or bottom leaves. The *ratoon* crop is sold separately under the name of *dooji*. The *murhan* leaves are yellowish brown in colour and medium in texture and strength. These are sometimes sub-divided into 3 grades according to size. Leaves of *ranti* grade are greenish brown in colour and medium in size, texture and strength. The *chhabua* leaf is brown to dark green in colour, coarse in texture and strongly flavoured.

The *desi* leaf produced in the United Provinces, Punjab and the North-West Frontier Province has similar characteristics being greenish brown in colour, medium to thick and coarse in texture, 6 to 12 inches long and 3 to 6 inches broad. The *desi* leaf of the United Provinces is, however, considered superior in texture and flavour.

(f) *Chewing and snuff tobaccos*.—As already stated earlier in the Supply Chapter, there is no variety grown to any appreciable

extent solely for chewing and snuff purposes in any part of India. Generally the same variety is consumed in a number of forms like *hookah*, chewing and snuff.

When tobacco is used for chewing in the leaf form, a medium texture is preferred, but a thick leaf with absorbing capacity is used when the tobacco is made up in the prepared form for chewing. No special stress is laid on colour, but light leaf is preferred in Bombay, and dark brown in Madras. The *jaffna* chewing tobacco imported from Ceylon into Travancore is, however, very dark. A biting taste and pleasant aroma are considered important. The extent of white incrustation (bloom) on the surface of the cured leaf is considered as an indication of quality in the case of chewing tobacco produced in the Coimbatore district and Mysore. The *jaffna* tobacco imported from Ceylon has a particular attraction for consumers in the Travancore and Cochin areas because of its peculiar taste, though in physical characters it appears to be similar to the *Meenampalayam* tobacco produced in the Coimbatore district. A micro-biological analysis of these two types indicate two distinct formations of colonies of organisms and it is possible that this peculiar taste of *jaffna* tobacco is the result of the differences in the micro-organisms present in these two types of tobacco.

For making snuff, the leaf should be brown to dark brown in colour and thick and brittle in texture so that it can be crumbled into powder.

The quality factors and grading practices of *jati* tobacco of North Bengal and *desi* of North Bihar have already been referred to.

The *desi* leaf of the United Provinces is dark brown in colour, thin to medium in texture, over 15 inches long and 6 to 12 inches broad.

The *Meenampalayam* tobacco of Coimbatore district is deep dark brown in colour, thick in texture, 23 to 26 inches long and 9 to 12 inches broad. Growers or merchants do not carry out sorting to any large extent though the manufacturers and retailers do sort the leaf according to the extent of white bloom on the leaf surface, texture and size.

The chewing tobacco grown in Mysore is sorted into four grades as below :—

No. 1.—Long and thick leaf with pungent taste and pleasant aroma and white bloom on the surface.

No. 2.—Short and thick leaf with the same pungency and aroma and white bloom as in *No. 1*.

No. 3.—Short and thick leaf with medium pungency and aroma and no white bloom on the leaf surface.

No. 4.—Inferior leaf with mild strength and aroma and no white bloom.

(2) NICOTIANA RUSTICA.

(a) *Hookah and chewing*.—The *motihari* leaf of *North Bengal* is greenish brown in colour, thick, coarse and wrinkled in texture, 10 to 15 inches long and 6 to 12 inches broad. No sorting is done either by the growers or the merchants to any appreciable extent, though manufacturers and retailers sort the leaf according to strength, texture and colour before manufacture or sale.

The *vilayati* leaf produced mostly in the *Purnea* district of *North Bihar* is considered to be very inferior quality *hookah* tobacco. The leaf is dark brown in colour, thin and coarse in texture, about 8 to 12 inches long and 5 to 9 inches broad. No sorting of any kind appears to be done for this type of tobacco.

The *calcuttia* leaf produced in the *United Provinces*, *Delhi* and *Punjab* is greenish brown in colour, medium to thick and coarse in texture, about 8 to 12 inches long and 5 to 9 inches broad. No sorting of any kind appears to be practised either by the growers or wholesalers except in some markets like *Hazro* in the *Punjab* where a rough classification is done by the wholesale merchants. In all these areas however the *calcuttia* leaf is prepared for the market in different ways and is sold separately. The three different ways are, tobacco bundles, tobacco ropes (*russa*) and tobacco powders. The tobacco bundles are made of either the leaves or the whole cured plant. Leaf bundles are partly used for chewing, but bundles of whole plants, ropes and powders are almost invariably used for *hookah*, a very small quantity being used for snuff. The powders are of three distinct kinds, viz., leaf powder, powder of stalks and stems and powder made from the flowering shoots. In the *Delhi Province*, these three types of powders are called *raddi pattiki*, *raddi lakdiki* and *raddi churaki*. At the time of making these powders by beating the tobacco plants with heavy wooden mallets on open fields, a considerable quantity of earth gets mixed with the powders and the *raddi churaki* in *Delhi Province* often contains as much as 50 per cent. earth. The merchants at *Hazro* classify the tobacco in the market as follows :—

No. 1—*Juri*.—Bundles of whole tobacco plants.

No. 2—*Pattar*.—Leaf or leaf powder.

No. 3—*Raddi*.—Powder of stalks and stems.

No. 4—*Kati* or *dhura*.—Powder of leaf and stalks.

No. 5—*Galla-bacha*.—Powder of flowering shoots.

Each of these are further sub-divided into three or four groups in accordance with strength, thickness of leaf and, to a small extent, colour.

(b) *Snuff*.—The *naswari* snuff tobacco produced in the *North-West Frontier Provinces* is brownish green in colour, thin to medium in texture, 10 to 12 inches long and 5 to 8 inches broad. The method of sorting adopted by the snuff manufacturers at *Hazro* is based on the position of the leaf on the plant. The three or four top leaves

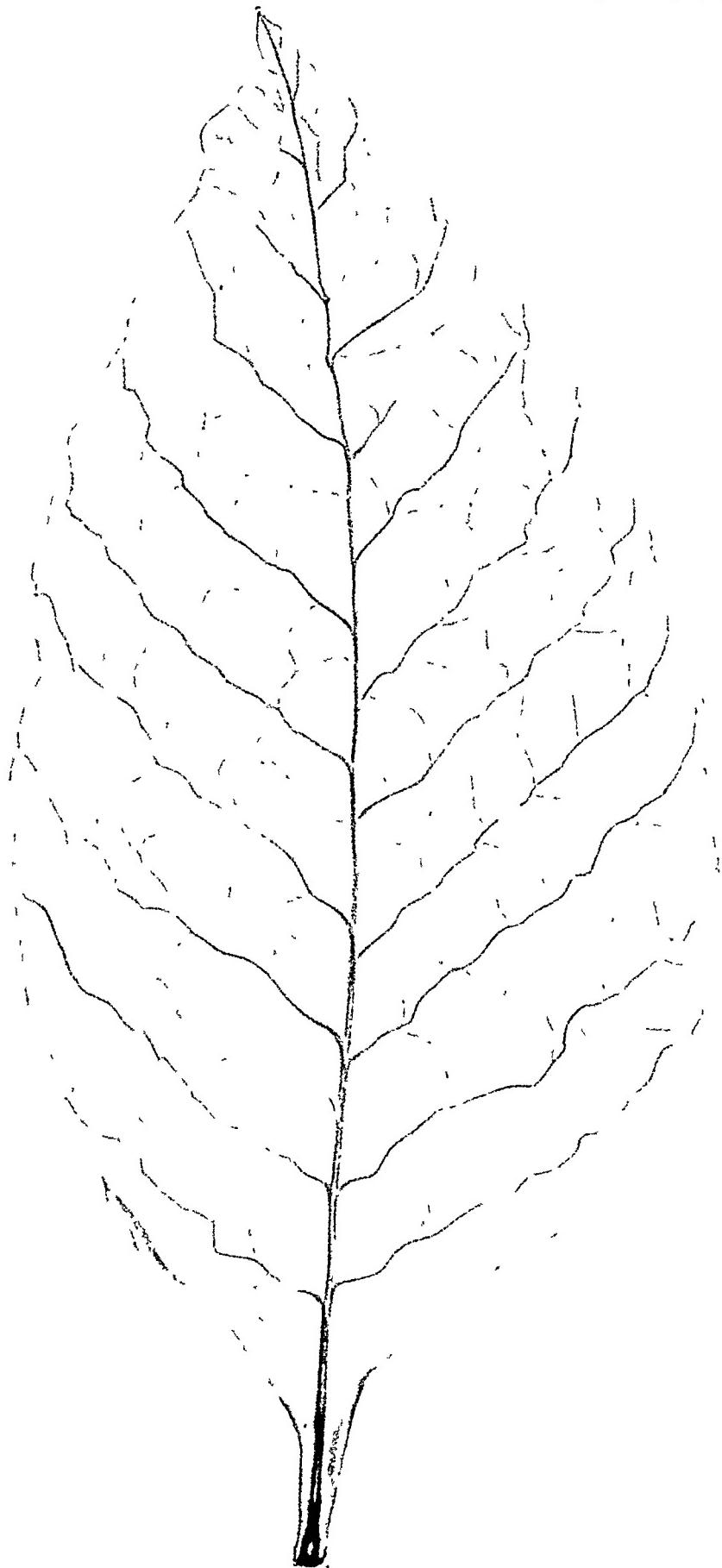
(*sarpatta*) are used in the manufacture of superior quality snuff, the lower leaves (*mudapatta*) being used for making the lower quality product.

C.—Suggestions for standardisation and grading.

(1) GENERAL.

The bulk of the tobacco crop in India can be classified into 2 botanical species; 8 commercial types and 20 classes. These are subdivided again as in the case of certain classes of cigarette, *bidi* and *hookah* tobaccos. There are sixteen classes of *Nicotiana Tabacum* and four of *Nicotiana Rustica*. These different classes have different quality characteristics and different price levels, and are quite different in this sense that a buyer who wishes to have one will not be satisfied if another is delivered to him instead. The first step towards bringing order out of the present confusion is for these 20 classes to be recognised and quoted in those markets where they are available, and, for traders to buy and sell on the basis of these descriptions. It would be also desirable for the growers in any district or area uniform with regard to soil, climate and rainfall—to grow only that class of tobacco which has been found most successful and become typical of the district or area, so that the reputation of the area for that particular class may be built up. The Agricultural Departments might render necessary assistance in this respect by propagating the seed only of the type and class found most suitable in any one area. It would be also essential to see that the number of classes and varieties grown in any uniform area is reduced to the minimum.

Even when the different classes are recognised, there still remains a fairly wide range of quality and price within the class according to grade, but the question of standardising the grades of tobacco under each class is far from being simple. Apart from the several complex factors that constitute quality, the area of production is the most important consideration taken into account by all the manufacturers before making purchases. In consideration of the introduction of grade standards, therefore, it must be recognised that they would apply to certain areas of production of fairly uniform type and quality. The survey results indicate that there are quite a few such uniform areas where individual merchants follow their own system of grading based on certain physical factors of quality such as colour, texture, size, etc. But this individual grading almost always results in the same so-called grade varying from one merchant or grower to another in the same place. Even with the same merchant or grower, the specified grade varies from month to month and season to season, and he generally bases his grades more on the type and quality of tobacco available with him than on any specific factors of quality. It is on this account that big manufacturers always prefer to visit, either personally, or through representatives, even areas of fairly uniform production, to buy leaf in bulk at a flat rate and subsequently grade it to suit their requirements. In the interest of the development of trade, it is essential to organise these individual attempts at grading into some definite standard system.



Indian Virginia Flue-cured Leaf
Standard Grade No. 1.

(2) SUGGESTED FACTORS AND SYSTEM OF GRADING.

The following suggestions are made regarding the factors and system of grading the several types and classes :—

(a) *Nicotiana Tabacum*.—

(i) *Cigarette tobacco—Virginia flue-cured*.—As discussed earlier, the principal factors taken into account by the growers, merchants and manufacturers in grading Virginia flue-cured leaf are the colour, texture and the blemish. The colour may vary from bright lemon to dull yellow with greenish tinge or reddish yellow. The texture may range from fine and silky to coarse and thin and papery while the usefulness of the leaf in manufacture would decrease with the amount of blemish on the leaf surface in the form of green colour, sponginess, scalding, brown and black spots, disease, etc. Taking into account all the possible variations in these three factors of quality, the flue-cured leaf can be conveniently graded into five standard grades to which a reference will be made later.

Virginia sun-cured.—Similarly the Virginia sun-cured leaf can be graded into three grades in accordance with variations in colour, texture and the amount of blemish on the leaf surface.

Country (Natu).—Five grades for this type of tobacco are suggested taking into account colour, texture and blemish.

(ii) *Cigar leaf*.—The principal factors of quality with cigar leaf are the colour, texture, size and freedom from blemish. The small quantity of cigar leaf grown in the Rangpur area is at present being sorted by a few merchants and manufacturers into four grades based on colour, size and blemish. Taking into account these practices it should not be difficult for the Bengal cigar leaf to be graded into four distinct qualities, based on the variations in colour, size and the extent of blemish.

The same procedure may be followed in grading the *Usikappal* cigar leaf produced in Madras, taking into account an additional quality factor, texture. Considering the variations in colour, texture and the amount of blemish, it may be possible to define about 5 grades for this type of cigar leaf.

(iii) *Cheroot leaf*.—The greatest possibilities of standardising grades of cheroot tobacco appear to exist in the case of *jati* tobacco produced in the Rangpur and Cooch Behar areas of North Bengal. The main factors for consideration in the grading of *jati* tobacco are the colour, size and the extent of brown spots on the leaf surface. Each of these quality factors has different importance in different markets. By studying the quality requirements of the principal markets like Rangoon, Moulmein, etc., it should be possible to prescribe at least three to four grades for each of the important consuming centres based on the variations in the principal quality factors.

In the case of *Usikappal* and *Meenampalayam* cheroot tobacco produced in Trichinopoly, Coimbatore and Madura districts, the

principal factors of quality are colour, texture and size. It is suggested that attempts might be made to define standard grades for these two classes of tobacco on the basis of these quality factors.

In *Burma*, size and texture appear to be the only two important factors taken into account in sorting the cheroot leaf. It is for consideration whether the grade descriptions given earlier and adopted by the bulk of the traders for the three grades of *Kun-ywa-hse* and four grades of *Shwemyin* and *Burmese Havana* can be standardised for the purpose of achieving uniformity.

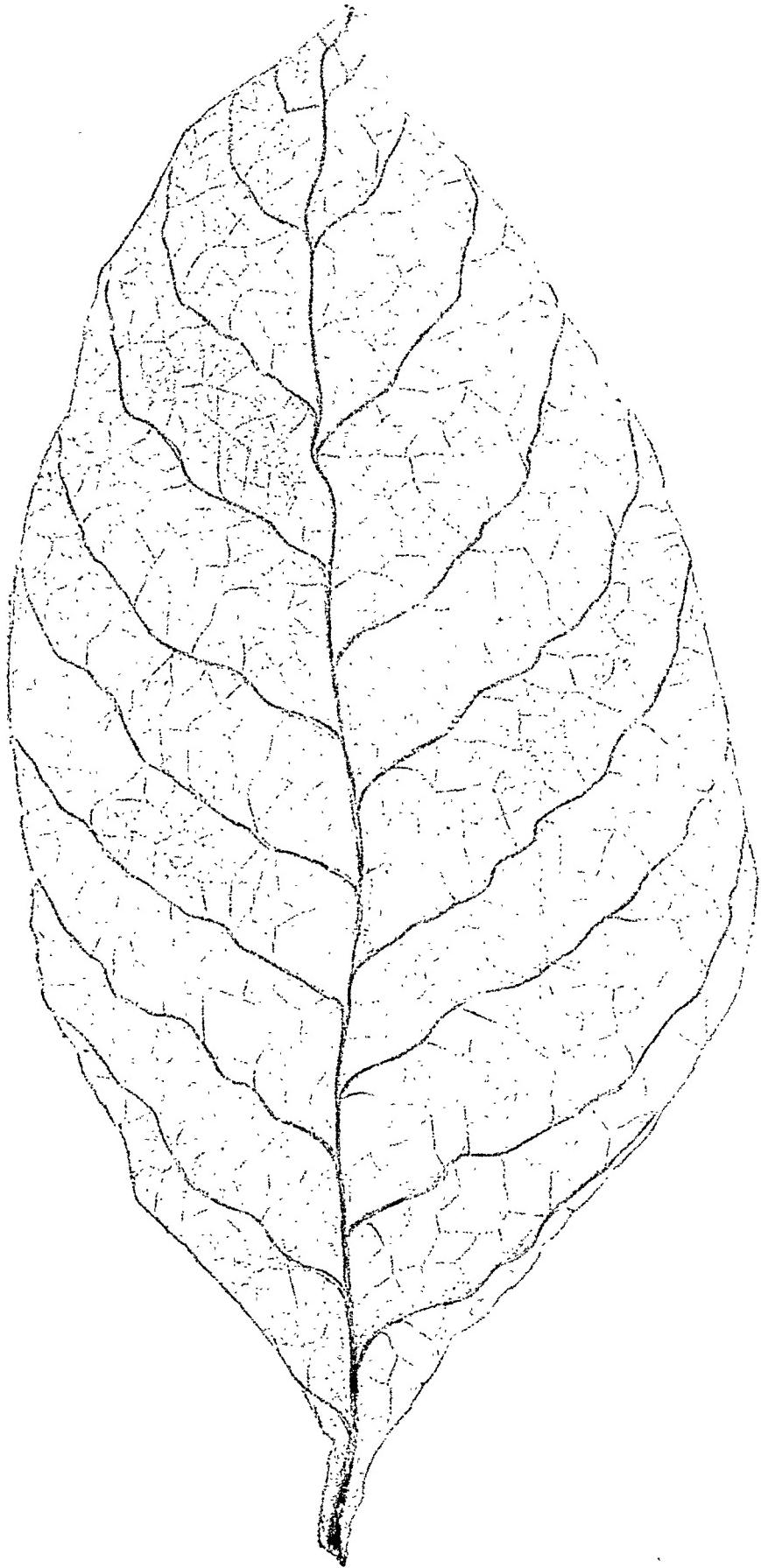
(iv) *Bidi and hookah*.—It is difficult at this stage without further investigation and experiment to suggest a system of standardised grades for *bidi* and *hookah* tobaccos which are crumbled into powders by the growers immediately after curing and before sale. But for such tobaccos which are sold in the form of leaf, as for example, the *desi* tobacco grown in *North Bihar* and *United Provinces* and the *jati* of *North Bengal*, it should be possible to work out standard grades. It is considered that to make a beginning attempts might be confined at first to the *desi* tobacco of *North Bihar* area where some kind of sorting is already being done by the growers and traders and to the *jati* tobacco of *North Bengal* area. In the *North Bihar* area, the *murhan* (middle leaves), *ranti* (top leaves), *chhabua* (bottom leaves) and *dooji* (ratoon leaves) may be each graded into three grades in accordance with colour and texture. Size appears to be a matter of secondary consideration and might be taken into account, only if the traders consider it of sufficient importance. Similarly it should be possible to define at least 3 or 4 standard grades for the *jati* tobacco of *North Bengal*, based on colour, texture and size of the leaf.

(v) *Chewing tobacco*.—The *jati* of *North Bengal* and *desi* of *Bihar* and *United Provinces* are also used for chewing. The quality of *Meenampalayam* chewing tobacco of *Coimbatore* district is very largely determined by the amount of white incrustation (bloom) on the leaf surface and colour, apart from the body, taste and pleasant aroma. It is for consideration whether this type of leaf cannot be graded into three or four definite standards in accordance with the variations of the white bloom on the leaf surface, colour and size.

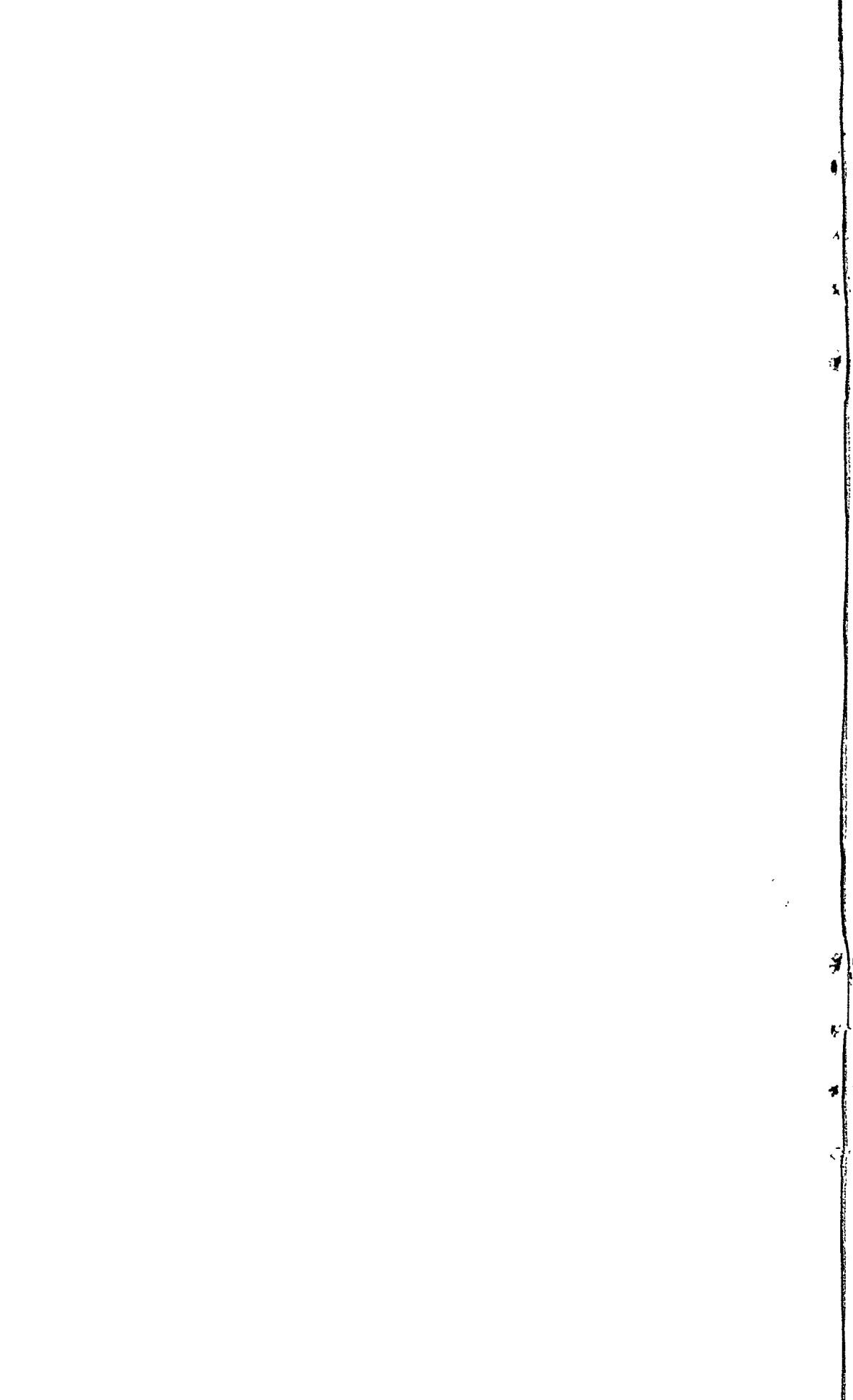
(b) *Nicotiana Rustica*.—

(i) *Hookah and chewing*.—Apart from strength, the only factors taken into account in judging the quality of *motihari* tobacco from *North Bengal* and *Cooch Behar* are texture and colour. The strength of the leaf varies from one part to another but with further detailed examination it should be possible to describe three or four standard grades of *motihari* based on colour and texture.

The *vilayati* tobacco produced in the *Purnea* district of *North Bihar* appears to be the cheapest tobacco leaf available in any market in India, and it is perhaps not advisable to suggest grading this class of tobacco without further investigation and experiment.



Indian Virginia Flue-cured Leaf
Standard Grade No. 2.



In the case of *calcutta* leaf produced in the United Provinces, Punjab and Delhi, it is difficult to suggest at this stage any system of grading for powders and ropes. The method of preparing the produce by pounding the whole plant into powder on open fields encourages the mixing of earth, and in Delhi Province alone, it is estimated that the earth so collected amounts to about 25 per cent. of the total weight of tobacco. Further enquiries made in this respect indicate that the growers would gain considerably by selling their produce in the form of bundles composed either of leaves or whole plants. But the growers generally prefer to make the tobacco into powder. It would appear that there would be some advantage in putting the powders of the different parts of the tobacco plant on the market free from earth. Manufacturers and buyers in Delhi City are in favour of a change of practice by the local growers on this line, and they have expressed the view that, it would in fact, pay the growers to do so. The growers and the village merchants on the other hand are inclined to take a different view and claim that the total sum received for tobacco and earth are larger than would be received for clean tobacco. They point out that the *hookah* manufacturers are accustomed to use a proportion of earth in making up their mixtures, and on that account, are not inclined to give up the practice of mixing earth with local tobacco. There seems to be no doubt that the reputation of the areas which are accustomed to mix a considerable quantity of earth in powdered tobaccos, must be such that any individual grower who attempted to market clean produce would find it difficult to get a sufficiently high price to compensate him for the absence of earth and any proposal to raise the standard of quality by introducing suitable grades would have to meet a general agreement in the trade before it would be successful. For individual growers or merchants who are at present anxious to secure an enhanced price, it would, it is suggested, be better to put their tobacco up in an entirely different form, e.g., in *juttis* or bundles.

In the preparation of tobacco ropes (*russa*), it is the usual practice to put the inferior quality plants inside and the superior ones on the top before preparing the rope. Once the rope is prepared it becomes very difficult to examine the quality of the tobacco without untwisting the rope and in doing so considerable quantity of the dried leaf falls off. It is noticed that the prices paid for the tobacco ropes are slightly higher than those paid for the tobacco powders, but considerably lower than those obtained for bundles of leaf or plant. It is therefore considered that it would be in the interest of the growers, if the system of preparing tobacco ropes is given up in preference to preparing bundles of leaf or plant.

In view of the fact that the leaves from different parts of the plant possess different quality characteristics with regard to texture, size and even colour, it is difficult to suggest any standard descriptions of grades in the case of tobacco sold in the form of bundles consisting of the whole tobacco plant. Considering that the prices of leaf bundles are always higher than those obtaining for plant bundles, it would be advisable for the growers to sell their leaf in the

form of leaf bundles instead of bundles of whole tobacco plants. The additional labour that may be required in plucking the individual leaves from the plant is not of much practical importance on peasant farms. Since there is a demand for the powdered stalks and stems, the remaining portion of the plant can be crushed into powder and sold to *hookah* manufacturers.

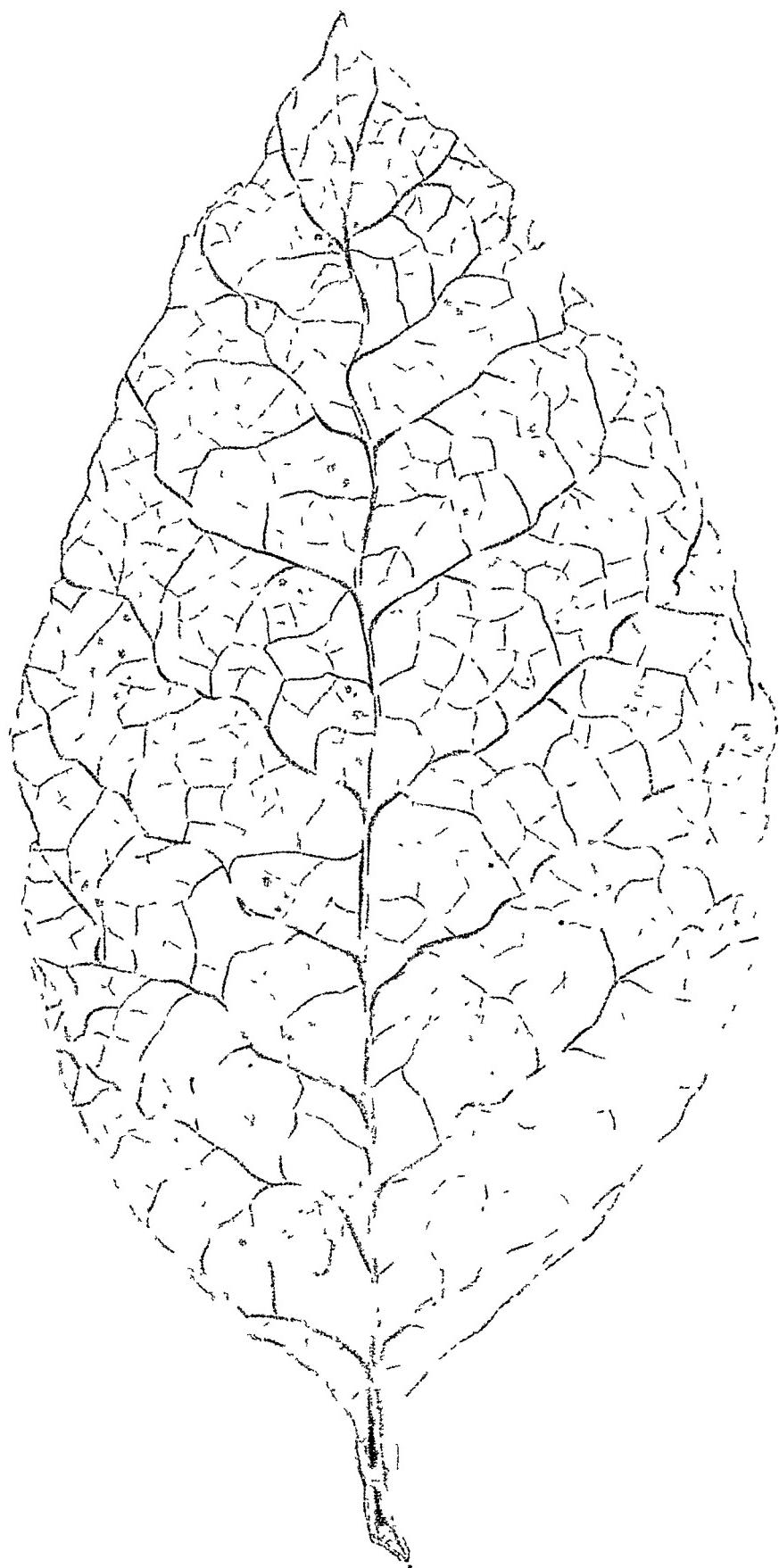
The first obvious step is for producers to sub-divide their *hookah* tobacco and put the different parts of the plant on the market separately and the leaf should preferably be in the form of bundles but it is a matter for further investigation and experiment whether the *calcuttia* leaf can be sorted into three or four grades in accordance with colour and thickness of leaf.

(ii) *Snuff tobacco*.—The method of sorting adopted by snuff manufacturers at Hazro in the case of *naswari* tobacco produced in the North-West Frontier Province is based on the position of the leaf on the plant, the 3 or 4 top leaves being considered superior to the lower leaves. The quality factors generally taken into account are colour, thickness and brittleness of leaf. The question of defining standard grades on the basis of colour and texture remains to be investigated.

(3) SUITABLE AREAS FOR GRADING TOBACCO.

As a first step towards the introduction of grade standards for tobacco leaf grown in India, such attempts might be made, with a reasonable hope of success, for following types.

Class.	Areas.
<i>Nicotiana Tabacum</i> —	
1. Virginia—	
(a) Flue-cured	
(b) Sun-cured.	Cigarette.
2. Country (<i>Natu</i>)—	Guntur, Mysore, Saharanpur, Jhansi and Satara.
Sun-cured	Guntur.
3. <i>Usikappal</i> —	Trichinopoly and Coimbatore.
(a) Cigar.	
(b) Cherooot.	
4. <i>Monnakappal</i> —	Madura.
Cherooot.	



Indian Virginia Flue-cured Leaf
Standard Grade No. 3.

Class.	.	Areas.
5. <i>Jati</i>	.. .. ..	Rangpur and Cooch Behar.
(a) <i>Rangpur-cigar.</i>		
(b) <i>Bhengi-cheroot.</i>		
(c) Chewing.		
(d) <i>Hookah.</i>		
6. <i>Desi</i>—	.. .. ..	Bihar, U. P. and Punjab.
(a) <i>Hookah.</i>		
(b) Chewing.		
7. <i>Meenampalayam</i>—	.. .. ..	Coimbatore.
Chewing.		
8. <i>Mysore</i>—	.. .. ..	Mysore.
Chewing.		
<i>Nicotiana Rustica</i> —		
9. <i>Motihari</i>—	.. .. ..	North Bengal and Cooch Behar.
(a) <i>Hookah.</i>		
(b) Chewing.		
10. <i>Vilayati</i>—	.. .. ..	North Behar.
<i>Hookah.</i>		
11. <i>Calcuttia</i>—	.. .. ..	U.P., Punjab and Delhi.
(a) Leaf—		
(i) <i>Hookah.</i>		
(ii) Chewing.		
(b) Powders—		
<i>Hookah.</i>		
(c) Ropes—		
<i>Hookah.</i>		
12. <i>Naswari</i>—	.. .. ..	N. W. F. P.
Snuff.		

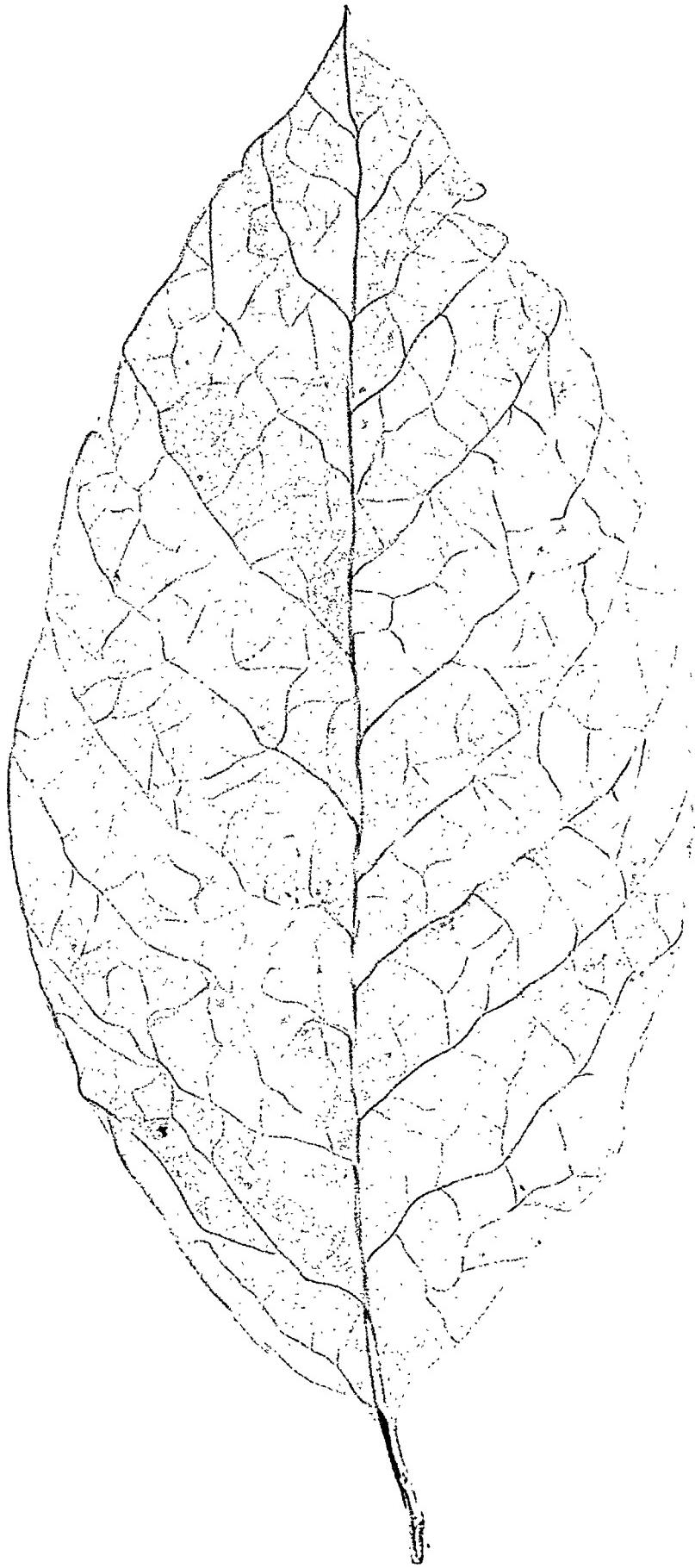
For Burmese cheroot tobacco, attempts might be made for *Kun-ywa-hsc* and *Shwegen* and *Burmese Havana*, in areas of Shwegen and north of Thayetmyo.

The question of examining the possibilities of the introduction of standard grades for *bidi* and *hookah* tobaccos which are crumbled into powders by the growers immediately after curing and before sale may have to be held over pending further investigation and experimentation.

So far as cigarette tobaccos are concerned, systematic grading is already being done, with encouraging results. The Central Marketing Staff in co-operation with the Provincial Marketing Staff held an informal conference of representatives of cigarette tobacco growers, traders and manufacturers in 1936. As a result of this conference, the Indian Tobacco Association was organised at Guntur with the object of introducing standard grades and the issuing of periodical bulletins and leaflets for the purpose of giving information on market intelligence, methods of cultivation, curing and grading of cigarette tobaccos. This Association was registered in January 1937 and has on its roll members who are growers, exporters and manufacturers. The activities of this Association are confined only to cigarette tobaccos. In consultation with the Association, the Agricultural Produce (Grading and Marking) (Tobacco) Rules were framed in March 1937 under the Agricultural Produce (Grading and Marking) Act, 1937. These rules were subsequently revised as a result of experience gained by the Association during the first year of its existence and the revised rules regarding grade specification, etc., are given in Appendix LXII. In accordance with these rules five standard grades have been specified for Virginia flue-cured leaf (see plates facing pages 242, 244, 246, 248 and 250), three for Virginia sun-cured and five for Country (*natu*) sun-cured, based on colour, texture and the extent of blemish.

75,000 lb. of cigarette tobacco was exported to the United Kingdom during 1937 graded and marked according to the Agricultural Produce (Grading and Marking) (Tobacco) Rules. This year (1938) the members of the Association hope to export about 375,000 lb. of cigarette leaf graded according to the standards. The Association has also commenced issuing monthly bulletins on market intelligence, giving information on area, production, stocks and prices of different types of cigarette leaf in the Guntur area, as well as, information about prices, stocks, etc., in the United Kingdom market and elsewhere. Leaflets for the benefit of the growers giving information on cultivation, curing and grading are also issued by the Association. The membership of the Association is on the increase and it appears that the Association has now thoroughly realised the advantages of adopting standard grades. In fact, the Association has now reached a stage when with a view to maintaining a high standard of quality, it is suggested that exports of cigarette tobacco might be allowed only on the basis of standard grades and that regulated and open markets might be established at a few centres in the Guntur area where producers could bring their graded leaf for sale by auction.

Attempts in a somewhat similar direction are now being made by the Central and Provincial Marketing Staff in the Rangpur,



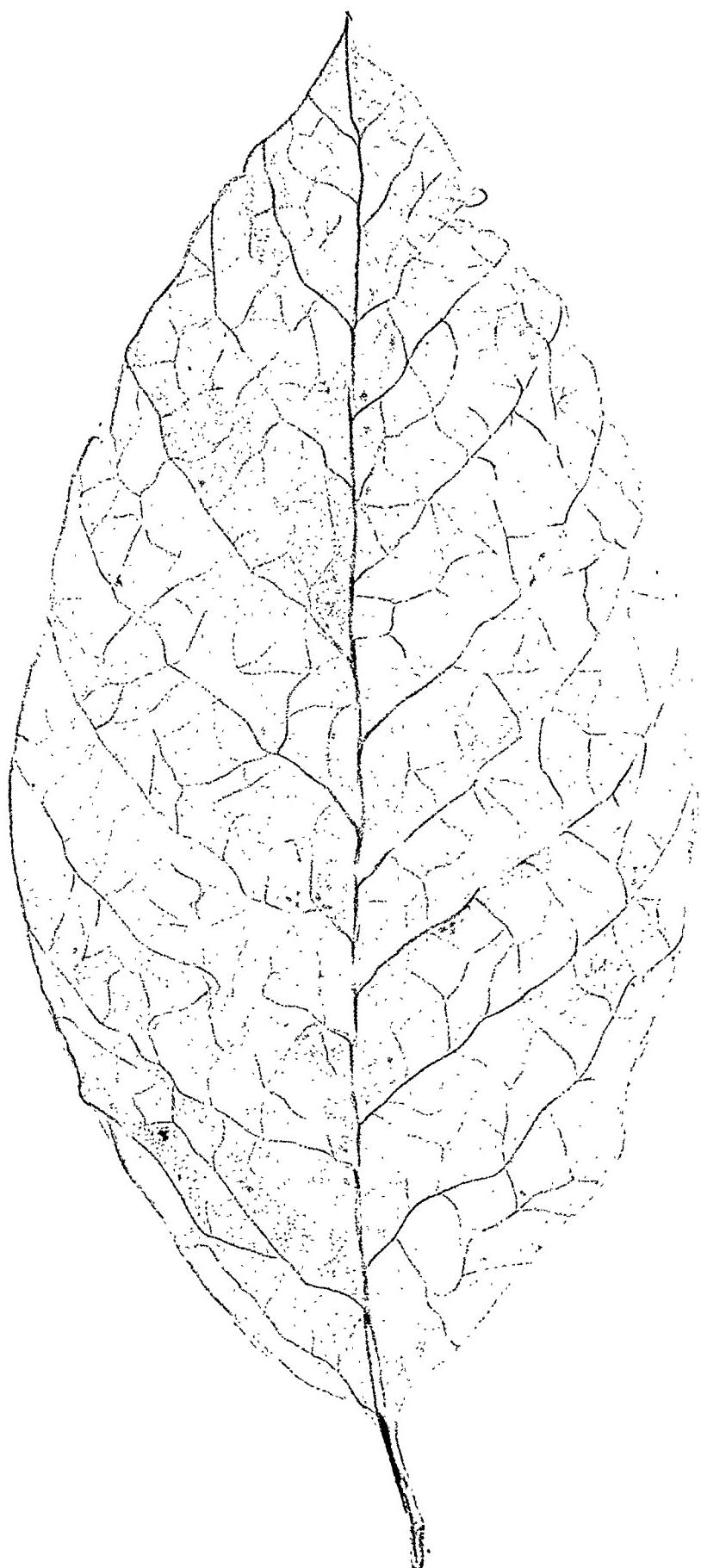
Indian Virginia Flue-cured Leaf
Standard Grade No. 4.

The question of examining the possibilities of the introduction of standard grades for *bidi* and *hookah* tobaccos which are crumbled into powders by the growers immediately after curing and before sale may have to be held over pending further investigation and experimentation.

So far as cigarette tobaccos are concerned, systematic grading is already being done, with encouraging results. The Central Marketing Staff in co-operation with the Provincial Marketing Staff held an informal conference of representatives of cigarette tobacco growers, traders and manufacturers in 1936. As a result of this conference, the Indian Tobacco Association was organised at Guntur with the object of introducing standard grades and the issuing of periodical bulletins and leaflets for the purpose of giving information on market intelligence, methods of cultivation, curing and grading of cigarette tobaccos. This Association was registered in January 1937 and has on its roll members who are growers, exporters and manufacturers. The activities of this Association are confined only to cigarette tobaccos. In consultation with the Association, the Agricultural Produce (Grading and Marking) (Tobacco) Rules were framed in March 1937 under the Agricultural Produce (Grading and Marking) Act, 1937. These rules were subsequently revised as a result of experience gained by the Association during the first year of its existence and the revised rules regarding grade specification, etc., are given in Appendix LXII. In accordance with these rules five standard grades have been specified for Virginia flue-cured leaf (see plates facing pages 242, 244, 246, 248 and 250), three for Virginia sun-cured and five for Country (*natu*) sun-cured, based on colour, texture and the extent of blemish.

75,000 lb. of cigarette tobacco was exported to the United Kingdom during 1937 graded and marked according to the Agricultural Produce (Grading and Marking) (Tobacco) Rules. This year (1938) the members of the Association hope to export about 375,000 lb. of cigarette leaf graded according to the standards. The Association has also commenced issuing monthly bulletins on market intelligence, giving information on area, production, stocks and prices of different types of cigarette leaf in the Guntur area, as well as, information about prices, stocks, etc., in the United Kingdom market and elsewhere. Leaflets for the benefit of the growers giving information on cultivation, curing and grading are also issued by the Association. The membership of the Association is on the increase and it appears that the Association has now thoroughly realised the advantages of adopting standard grades. In fact, the Association has now reached a stage when with a view to maintaining a high standard of quality, it is suggested that exports of cigarette tobacco might be allowed only on the basis of standard grades and that regulated and open markets might be established at a few centres in the Guntur area where producers could bring their graded leaf for sale by auction.

Attempts in a somewhat similar direction are now being made by the Central and Provincial Marketing Staff in the Rangpur,



Indian Virginia Flue-cured Leaf
Standard Grade No. 4.

Darbhanga and Trichinopoly areas and it is hoped that some kind of standard grades might be tried in these areas as an experimental measure during the next tobacco season.

(4) STANDARDISATION OF PACKAGES.

Another problem of standardisation is with regard to the methods of packing adopted for the different types of tobaccos. The packages used for the indigenous types of tobacco appear to be satisfactory under the existing methods of trade and consumption. The question of using standardised and better types of packages for Indian cigarette tobacco is, however, important. At present, the bulk of the cigarette leaf exported by Indian exporters is packed in bales containing about 250 lb. of leaf. Since the bulk of the cigarette tobacco exported goes to the United Kingdom, it would be desirable to consider the opinion of the United Kingdom manufacturers regarding the advisability of packing cigarette leaf in bales. Most manufacturers believe that tobacco matures better in the cask than in the bale, and almost all complain that packing in bales results in greater breakage of leaf and therefore of waste, more particularly, when by inexperience the leaf is over-dried. The American tobacco received in the United Kingdom market is almost invariably packed in casks of the "tierce" description weighing under 900 lb. net, or in cases. The manufacturers always show a preference for tobacco that is packed in hogsheads, casks and wooden cases and it is on this account that few of the Indian exporters have been exporting their leaf in hogsheads during the last 2 or 3 years. The bales and hogsheads used by Indian exporters are of fairly uniform size, but with a view to standardise these packages it would be desirable if the Indian Tobacco Association at Guntur, also adopts standards for packages, particularly for tobacco leaf exported according to the standards. It would be also desirable to include provision in these rules for standardised methods of packing.

D.—Systems of grading in some of the important tobacco producing countries.

(1) RHODESIA.

After the leaf is removed from the flue-curing barn, it is roughly sorted into four grades according to colour, *viz.*, bright, medium, dark and green. Each of these grades is arranged in separate bulks. Leaf which is green in colour is placed in one corner of the shed as this bulk is the last one required for grading. The tobacco is removed from the bulk for grading, starting first with the bright leaf. It is placed on tables in the grading shed, where it is sorted out according to colour, size and texture. On the table there are six divisions, one each for the following grades : straight leaf, slightly perished or torn, badly perished or torn, green, spotted leaf, and sponged leaf. The straight grade leaf is then collected for further sub-division and taken for final sorting to another table with four divisions which are for Nos. 1, 2, 3 and the leaf with green tinge. The

slightly perished or torn leaf is next graded out in a similar fashion and so on until the last of the grades from the six divisions has been dealt with. After the bright leaf, the medium leaf is dealt with, then the dark leaf, followed by the green tobacco. The graded tobacco is now tied into "hands". Only leaf of similar grade and length is tied in the same hand of tobacco. Leaf under eight inches in length is not tied into hands but is packed in bales as loose leaf. There are 49 standard grades for flue-cured leaf. Appropriate standard symbols have been adopted to designate the different grades.

(2) SOUTH AFRICA.

Before the green leaves are threaded and cured they are sorted into the following classes according to condition and size, *viz.*, large, medium and small :—

- (i) *Sound, whole ripe leaves*—these are sorted into further classes according to size, *viz.*, large, medium and small.
- (ii) *Over-ripe leaves*, if the quantity is exceptionally large, these are classed into two sizes.
- (iii) *Broken leaves*—those damaged by wind or eaten by insects.
- (iv) *Green leaves*—these are usually discarded.

After curing, all the broken, green, over-ripe and mouldy leaves are separated from the rest. The sound leaves are then classed according to pickings, size and colour.

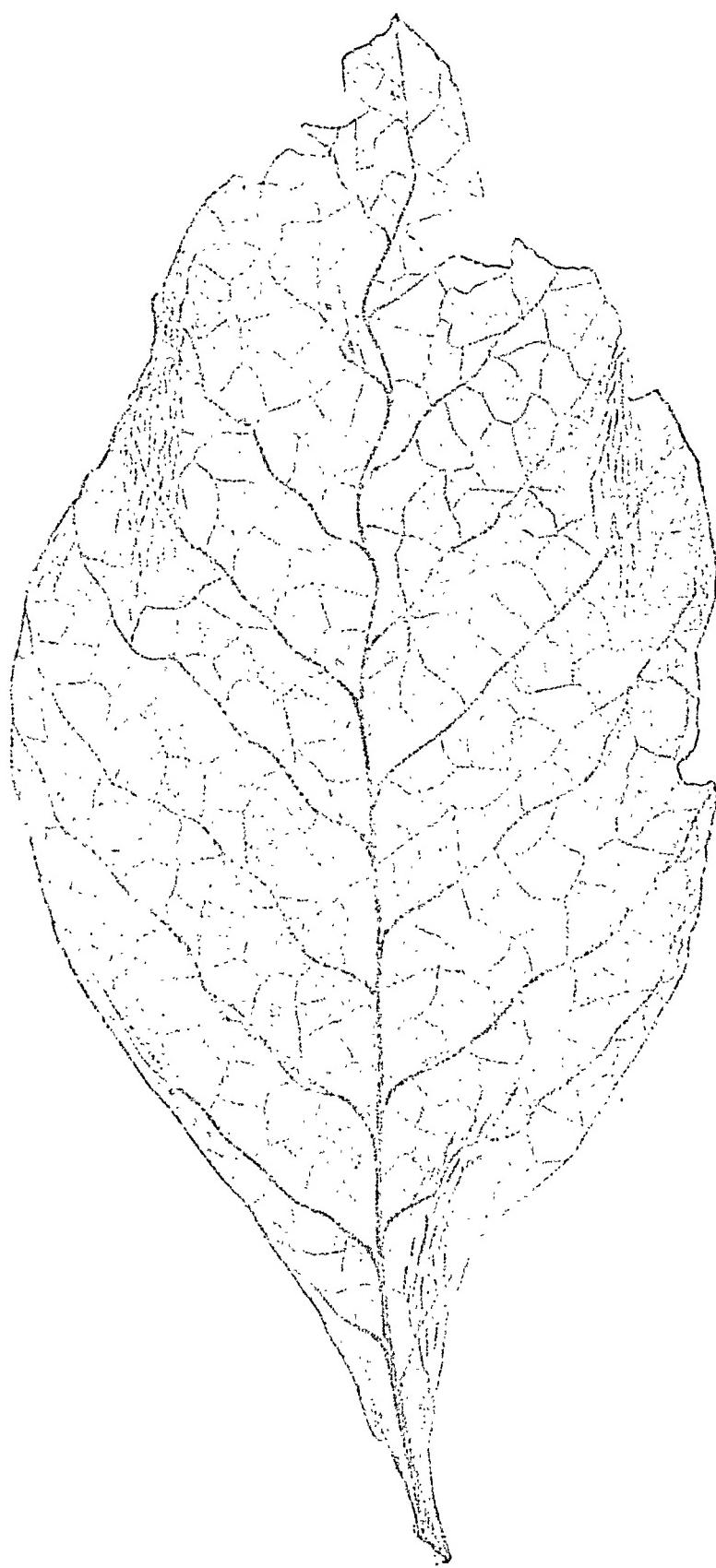
(3) CANADA.

Ten standard grades have been adopted by the Ontario Burley Marketing Board for the Burley tobacco, each grade being designated by standard symbols.

The system of grading flue-cured leaf is largely based on the methods followed in the United States of America.

(4) UNITED STATES OF AMERICA.

- (a) *Grades*.—The systems of grading different types of tobacco leaf in America appear to be the most elaborate and comprehensive. Under the authority of United States Warehouse Act and the Tobacco Stocks and Standards Act, the Secretary of Agriculture has made rules regarding the classification and grading of unmanufactured tobacco. According to this official classification, all American-grown tobaccos are divided into seven classes. The first three classes are based on the method of curing, the next three on the principal uses for which the tobacco is grown and the seventh class covers all miscellaneous types not otherwise classified. These classes are :—
 (i) Flue-cured types, (ii) fire-cured types, (iii) air-cured types, (iv) cigar filler types, (v) cigar binder types, (vi) cigar wrapper types, and (vii) miscellaneous types.



Indian Virginia Flue-cured Leaf
Standard Grade No. 5.

All tobaccos imported from foreign countries like Cuba, Sumatra, Java, Philippine Islands, etc., are classed separately so that the foreign types practically form the eighth class.

It is the first six classes which are important from the point of view of internal and international trade. Each class is sub-divided into types. A type is defined as a division of a class of tobacco having certain common characteristics which permit its being divided into a number of related grades. The first six classes cover 26 important types with 2 to 6 types in each class. Of the 26 important types, grades have been published for 23 types.

Under each type, tobacco leaf is graded on the basis of 4 factors :—(i) Group, (ii) Quality, (iii) Colour, and (iv) Length.

Group which is a sub-division of a type, is very largely based on the position of the leaf on the plant. There are from 4 to 6 groups in each type. Standard symbols for group names have been prescribed and for the flue-cured types these are :—

A—Wrapper, B—Leaf, C—Cutters, X—Lugs, N—Nondescript, S—Scrap. Under the Tobacco Stocks and Standards Act the leading dealers and manufacturers are required to report to the United States Department of Agriculture, quarterly, their stocks of leaf tobacco divided by type and groups of grades.

The next sub-division divides each group into *qualities*. The various degrees of quality, from 1 to 6, are based upon factors like cleanliness, soundness, smoothness, texture, elasticity, oil, wax, maturity, grain, body, strength, finish, venetian; width of leaf, uniformity, damage, etc., according to their importance in the particular group. The terms used to describe quality are :—Choice, Fine, Good, Fair, Low and Common. The symbols used to denote these terms are numerals from 1 to 6. .

The importance of *colour* varies with different types. In types, like the flue-cured, in which colour is of sufficient importance to be shown as a part of the grade description, the several shades of colour are designated by letters. Some of the important colours are :—L—light, F—medium, R—red, D—dark, G—green and M—mixed. In the flue-cured class, the lights are lemon coloured, the mediums are orange coloured and the darks are mahogany coloured.

For types in which *size* is an important consideration, standards of length have been established and published. Several lengths, commonly known as sizes, are designated by different series of numbers.

A complete tobacco grade symbol, with the four grade factors, group, quality, colour and length arranged in order, forms a code by which a specific grade is indicated. The code system conforms to trading practices, makes for brevity and facilitates commercial transaction. For example, the Grade B5F43 (of type 21) refers to the "leaf" group of tobacco, fifth quality, medium colour and size 43. Grade A2L (of type 11) refers to wrapper tobacco, second quality

and lemon colour. In flue-cured tobacco alone, there are four types, and each type has got 65 standard grades.

The primary purpose of the Federal standards is to furnish the basis for warehouse inspection and market news service to growers. The Federal standards have also been adopted for the purposes of future trading.

(b) *Grading service.*—The United States Department of Agriculture in co-operation with State agencies has made the Tobacco Inspection Service available to growers at a few markets, to determine whether by informing the growers as to the grade of their produce, the auction market system would be improved. The inspection service undertakes the inspection and certification of the grade of tobacco, before sale, at auction markets. Packed tobacco is also inspected and the grade certified upon application by interested parties.

The general procedure of the grading or inspection service is that the grower delivers his leaf at any warehouse he may select, where it is weighed and arranged for sale on flat baskets. A warehouse ticket is placed on the lot and this shows the name of the seller and the weight of leaf in the lot. Space is provided on the ticket for the name of the buyer, the grade symbol of the buyer and the price at which the leaf is sold. It has also a space in the corner, where the official inspector puts in the type, grade and signs his initials. The warehouse ticket then becomes a grade certificate and shows the type of tobacco as well as its group, quality and colour by the standard symbols. When the auction starts on each lot, the grade of the lot is announced for the information of all the parties concerned.

The official grading inspectors are removed as completely as possible, from influences calculated to sway their judgments in grade determinations by making them completely responsible to the United States Department of Agriculture, or to the Federal and State Departments of Agriculture, if the grading service is handled jointly.

One or more copies of the *grade certificates* issued by the official grader are filed in his office and when practical other copies may be distributed to interested parties.

Another kind of certificate issued by the official grading inspector is the *inspection certificate* which is given when packed tobacco leaf is inspected. The certificate shows, (i) the date of certificate, (ii) the location of tobacco, (iii) the kind of package, (iv) a number or other symbol by which the package can be identified, (v) the type, grade, form and condition of the tobacco, (vi) a statement to the effect that the certificate is issued under the Act, and (vii) the signature of the official grader. The original certificate, immediately upon its issue, is delivered or mailed to the applicant for whom the grading was done and copies are supplied to interested parties who have purchased or sold the tobacco. Copies of the certificate are filed in the office of the official grader as in the case of *grade certificates*.

[Classification, grading and standardisation.]

INTER-CHAPTER SIX.

In the United States of America where the production and marketing of tobacco is carried out on an enormous scale, an elaborate and comprehensive system of grading has been established under the United States Warehouse Act and the Tobacco Stocks and Standards Act. The primary purpose of the Federal Government standards is to furnish the basis for warehouse inspection and a market news service for growers. The standards have also been adopted for the purpose of "future" trading and for securing advances against stocks.

In the United States, tobacco is divided into seven classes, three being of cigarette leaf, viz., flue-cured, fire-cured and air-cured, three of cigar leaf, viz., fillers, binders and wrappers and one miscellaneous. The first six classes referred to are divided into 26 types largely on the basis of size of leaf, and each of these types is again sub-divided into groups which depend mostly on the position of the leaf on the plant. Each of these groups is further sub-divided into six qualities according to texture, freedom from damage, etc., and in the case of cigarette leaf, is further described according to the colour. Standards of length have been defined for types, in which size is an important consideration.

All the American tobacco belongs to the *Nicotiana Tabacum* species. In India, as has already been observed there are two distinct species, viz., *Nicotiana Tabacum* and *Nicotiana Rustica* each having quite distinctive characteristics. These constitute the first two main divisions in any system of classification. The bulk of the tobacco grown in India can, however, be subdivided into classes which are in the main characteristic of the leading centres of production. There are 16 distinct classes of *Nicotiana Tabacum* and 4 of *Nicotiana*:

tica, but in considering the possibility of introducing standard grades in this country at an early date, it is perhaps only necessary at this stage to have regard to but 8 classes of *Nicotiana Tabacum* and 4 of *Nicotiana Rustica*.

For the time being, until the subject has been further decided, it would be better to omit consideration of the classes of *bidi* tobacco, viz., *Gujerati* and *Nipani*, which are reduced to powder form before being sold. Similarly powder and ropes of *Calcutta* and any form of tobacco where the product consists of the whole plant may also be omitted.

This leaves for consideration the following classes : *Singanapalli* (both flue-cured and sun-cured) and *Natu* (sun-dried) cigarette leaf as grown in the Guntur area, Mysore, Saharanpur, Jhansi, Satara and in small quantities elsewhere ; *Usikappal* and *Monnakappal* for pipes and cheroots as grown in the Trichinopoly, Madras, Coimbatore and Madura districts ; cigar leaf grown in Andhra Pradesh and Rangpur ; the *Jati*, particularly the *Bhengi* variety as used for cheroots and the remainder of the cigar leaf grown in North Bengal and Cooch Behar areas for smoking and *hookah* ; *Desi* tobacco scattered throughout Bihar, United Provinces and Punjab as used for *hookah* and chewing. All these seem capable of being marketed on the basis of standard grades. The grading of Mysore chewing tobacco and of the *Meenampalayam* tobacco as grown in Coimbatore district for chewing may also seem to be possible. Certain classes in the *Nicotiana Rustica* group deserve consideration and the possibility of establishing separate grades for chewing and *hookah* in each case needs examination. The following are the important classes : *Motihari* as grown in North Bengal and Cooch Behar areas, *Vilayati* of North Bihar, *Calcutta* as grown in the United Provinces, Punjab and Mysore where it is marketed in the form of leaf and not

as powder or ropes. Finally *Naswari* tobacco as used for making snuff in the North-West Frontier Province might also be dealt with.

Statutory grades for cigarette leaf have already been prescribed under the Agricultural Produce (Grading and Marking) Act 1937, which define the grades on the basis of colour, texture and freedom from blemish. There are five grades of Virginia flue-cured which range from bright lemon in No. 1 to dull yellow with greenish tinges in No. 5. The texture ranges from fine to coarse and thin. First grade leaf must be practically free from blemish but the fifth grade may have brown patches and affected to some extent with sponginess and scalding.

Physical standards corresponding with the prescribed grade designations are drawn up by the Indian Tobacco Association with its headquarters at Guntur. In the first year the grades were introduced, 75,000 lb., were exported to the United Kingdom market as an experiment and in the second year it is estimated that 375,000 lb., would be despatched.

Grades have been similarly defined under the Act for sun-cured Virginia and sun-cured *Natu* (country) tobacco. The former ranges from bright to dark brown in colour and the texture good or medium. The latter ranges from bright to dark in colour and from good texture to leaf with a heavy body.

No attempt has so far been made to grade any of the other classes of Indian tobacco. Those used for cigar leaf might be graded on the basis of colour, texture, size and freedom from blemish. At present, for example, a few merchants and manufacturers of such leaf grown in Rangpur already sort the leaf into 4 grades and it seems worth consideration whether these could not be standardised.

The greatest possibility of standardising grades of cheroot tobacco appear to exist in the case of *jati* produced in Rangpur and Cooch Behar areas of North Bengal. The main factors in this case are colour, size and the extent of brown spots on the leaf. Each of these quality factors, however, has a different degree of importance in different markets. It would, therefore, be necessary to study specially the requirements of the principal markets for this leaf, Burma, for example.

For *hookah* and chewing tobaccos which are sold in the form of leaf the *jati* tobacco of *North Bengal* should afford scope for the standardisation of grades but the *desi* tobacco of North Bihar and United Provinces should also be taken into account. In *North Bihar* for example the middle leaves (*Murhan*), the top leaves (*Ranti*), the bottom leaves (*Chhabua*) and ratoon leaves (*Dooji*) would each seem capable of being sorted into three grades in accordance with colour and texture. Size, however, might be regarded as a secondary factor.

The *jati* of *North Bengal* and the *desi* of Bihar and United Provinces could also be graded and packed separately for chewing purposes and the possibility of grading the more expensive Meenampalayam chewing tobacco of Coimbatore district might be tried out. In this case apart from body, taste and pleasant aroma the quality is very largely determined by the amount of white bloom on the leaf surface and by the colour. There seems scope for the introduction of at least three or four standard grades.

In attempting to grade the different classes of tobacco falling in the *Nicotiana Rustica* species, the main factors are strength, texture and colour and the different classes of leaf might well be graded on the basis of those factors.

Suggestions in regard to grading meet with opposition owing to the fact that some growers and merchants

feel that it pays to dispose of as much earth and rubbish as possible with the tobacco. Where this view prevails any individual effort to raise the standard of quality by introducing grades is perhaps not likely to prove profitable. On the other hand the experiment would be well worth trying.

The demand for tobacco and the price it commands very largely depend on the quality and in the interests of the growers in the chief areas of production, it is essential to enhance the reputation of the locally grown tobacco. This can only be done by the introduction of standard grades which would be adhered to by all concerned.

It is perhaps interesting to note that although standard grades have only been in operation for cigarette tobacco in the Guntur area for less than two years, there is already a large body of opinion amongst growers, merchants, exporters and manufacturers that it would be to the advantage of all of them if steps could be taken to ensure that all the cigarette tobacco grown and exported from that area could be graded and marked in accordance with the provisions of the Agricultural Produce (Grading and Marking) Act.

The importance of this attitude should not be lost on the growers and merchants concerned with the production of different classes of tobacco in the other main producing areas throughout India and Burma.

CHAPTER VII.—STORAGE AND STOCKS.

A.—Importance of storage.

The production of tobacco is seasonal while the demand is spread over the year. It is, therefore, necessary to store tobacco until it is required for consumption. The storage of tobacco has also an important bearing on its smoking quality. In the case of cigarette tobacco, for example, it is considered essential to keep it in store for some time till it becomes mellow and fit for manufacture. After the cigarette leaf is re-dried, it is packed in hogsheads, boxes or bales and kept in store for ageing. It is desirable to allow the leaf to mature sufficiently before it can be used in the manufacture of good quality cigarettes. During storage the leaf undergoes fermentation which mellows the leaf, removes its rawness and bitterness, betters the colour and develops aroma. The leaf is as a rule not considered sufficiently matured for use in the manufacture of good quality cigarettes till after about 24 months' storage.

Ageing is also important in the case of *bidi* tobacco. Well-known manufacturers of *bidis* consider that *bidi* tobacco should be aged at least for 6 months before using it in the manufacture of *bidis*. Ageing is supposed to decrease the harshness of tobacco without affecting its strength to any appreciable extent. It also improves its burning quality. In the *Nipani* area of Bombay Presidency the quality of *Nipani* and *Akol* *bidi* tobaccos goes on improving after about 6 to 12 months' storage, while that of *Mirji* and *Pandharpuri* *bidi* tobaccos improves after about 8 months' storage. In the Gujarat area the *bidi* tobacco is considered to improve in quality after about 6 months' storage.

In the manufacture for *hookah* purposes newly harvested tobacco is considered harsh. Most of the wholesale tobacco merchants and *hookah* manufacturers therefore store their tobacco stocks for about 6 months before using them. Even the tobacco growers themselves very seldom use newly harvested tobacco before it is sufficiently aged. Whenever they have exhausted the previous year's crop and are forced to use fresh tobacco leaf from their fields for smoking, the cultivators of Gujarat resort to a make-shift device which consists of putting fresh tobacco in an earthen vessel which is then put on the fire for about half an hour. The tobacco thus treated is then considered fit for smoking, as it partially loses its harshness.

In *Burma* also most of the merchants and manufacturers age their tobacco before using. The tobacco improves in quality on storing and is said to have the best smoking quality after it has been in store for about 4 to 12 months. The quality of the lower grade tobaccos, however, deteriorates after about 8 to 10 months' storage.

B.—Methods of storage.

(1) IN VILLAGES.

Under the existing system, excepting a few well-to-do growers many of whom are also merchants, the cultivators of tobacco, as a

rule, do not store tobacco before sale for any appreciable length of time. Apart from the pressing need for cash on the part of most of the growers, the most important reason is that without adequate storage facilities tobacco, particularly cigarette, cigar, cheroot and high quality chewing leaf, deteriorates fast in quality, especially in colour. Since few growers can afford to have such facilities, they generally prefer to sell immediately after harvest. Tobacco becomes ready for the market during the months immediately preceding the break of monsoon in June and in the absence of adequate storage facilities deterioration occurs at a faster rate during the monsoon months than during the remaining part of the year. It is for this reason that the growers' prices of cigarette and cheroot leaf and better quality cheroot and chewing tobaccos do not improve on storing. The few growers who store are mostly producers of *bidi* and *hookah* tobaccos as in the case of these types deterioration in colour during storage is of little consequence to manufacturers and as the smoking quality improves after storage. As noted earlier in the Supply Chapter, even in the case of those growers who can afford to store and hold over the crop, transport by cart to the nearest market or railway station is extremely risky during the monsoon period since a small shower during transit by cart might spoil the quality of whole cart-load of tobacco. Hence such people have to wait till late September when the early monsoon period is over. The conditions with regard to the disposal of the crop immediately after harvest in different areas have already been discussed under the 'seasonal variation in the flow of market supplies', but it may be repeated here that the proportion of the farmers' crop that is stored to be marketed after the end of the monsoon late in September or early October is extremely small, most likely not more than 5 per cent. of the total.

The few well-to-do growers who store tobacco to be sold after the end of monsoon usually keep it in one of the living rooms of their houses or in a part of cattle shed, if it is well protected from the sun and the rains. The floor of the living room or cattle shed is cleaned, smeared with mud or cow-dung and then a small raised platform is prepared on it using either wooden planks or bamboos or straw. The houses of grower-merchants are usually well built with *pakka* roofs and floors and adequate ventilation. A few of such persons, particularly from Guntur and Gujerat, have got their own well-built godowns. Leaf tobacco intended for indigenous types of consumption like *bidis*, *hookah*, chewing, snuff, etc., is first tied into bundles or hanks and these are then arranged in stacks or heaps over the raised platform. The heap is then topped with dry grass or palm leaves which are covered with gunny cloth or mats. The heaps are periodically disturbed with an interval of about 2 to 5 weeks and are rearranged, the bottom and the middle bundles being brought over to the top of the heap on each occasion. Tobacco powder intended to be used for *hookah* is simply heaped on the floor and the heap is covered with gunny or other cloth. Superior quality *hookah* tobacco powder and all *bidi* tobacco powders are first filled in gunny bags which are then stacked one over the other in the store

room. The bags are re-arranged once a fortnight or a month, the bottom bags coming on the top.

But even in the case of small growers tobacco is required to be stored at least for some time before it is sold and the period of storage may range from a few days to a few weeks. Such temporary storage is done by the growers in their own fields either under the shade of a tree or a thatched roof. If the period of storage is considerably long and there is fear of pilferage or rains by storing in open space, the tobacco is carried by the grower to his own house where it is stored in one of the living rooms.

In *Burma* the peasant growers do not experience any difficulty as regards storage, as most of the crop is sold off by about July. In the case of a few who hold part or whole of their crop in the expectation of better prices, the tobacco leaf is stored in baskets which are then arranged one over the other on raised platforms in one of the living rooms of the grower.

(2) IN MARKETS.

The storing of tobacco is mostly done by commission agents and merchants in the principal assembling and distribution markets. In *Bengal*, *Bihar* and *Orissa* the merchants and commission agents store tobacco leaf in bales which are arranged horizontally one over the other in godowns with thatched roofs and mud floors on which platforms of bamboo or wooden planks are built. In big markets like Calcutta, however, the godowns are well built with *pakka* floor and roof. In storing tobacco the merchants take particular care to protect it from the sun and the rains. The tobacco bales are disturbed periodically, particularly during the monsoon months. In most cases the godowns belong to the merchants and commission agents themselves.

Commission agents and the merchants in the *Bombay Presidency* usually have their own godowns which are well-built and adequately protected from the sun and the rains. In these godowns their own tobacco is stored, but in the *Nipani* area there is a system by which the commission agents store tobacco of their clients who are in most cases petty village merchants, charging them godown rent. At Nipani the godown charges are half an anna per bag of tobacco per month and in addition 2 annas per cart of 16 bags are charged every time the bags are turned over in the godown. The charge for turning over the bags is locally known as '*ferwamani*'. The *ferwamani* is done every 2 or 3 weeks, but sometimes even at shorter intervals during the monsoon. At Sangli, godown charges are not levied by the commission agents from their clients for 1 month's storage, but afterwards the charges are 9 pies per bag per month, besides the *ferwamani* charge of 3 pies per bag on each occasion the bags are re-arranged. At Nipani, generally no insurance charges are made but at Sangli an insurance charge at 4 annas per cent. is made for any period after harvest till about October. No insurance charge is, however, recovered if the tobacco is kept in store for only one month. At Jaysingpur, the godown charges

work out at 8 annas per cart of 16 bags per month, in addition to the *ferwamani* charge of 4 annas per cart each time the bags are turned over. Insurance charges come to about 4 annas per cent. for any period up to a year. It may be, however, noted that these facilities for storage offered by commission agents in the Nipani area are in most cases availed of not by the growers but by petty merchants who cannot afford to have their own or specially hired storage facilities.

In the Guntur area of *Madras*, the tobacco leaf is stored by the smaller merchants in temporary thatched sheds with *kachcha* floors. The floor is smeared with cow-dung and then the tobacco bales are arranged one over the other. About half a dozen merchants, however, possess extensive godowns which are well-built with *pakka* floors and tiled or corrugated iron sheet roofs. In these also the tobacco bundles are arranged one over the other after their arrival from villages. These tobacco bundles are, however, immediately opened up afterwards and bulked, re-dried, pressed and packed into bales, hogsheads or wooden cases which are then again stored till they are despatched. In the case of Virginia cigarette tobacco the period of storing is small ranging from a month to 4 months, depending upon the volume of business handled by an individual merchant. Country cigarette tobacco, however, has to be stored by the merchants necessarily at least for 3 to 4 months until it is exported to Japan or sold to buyers within the country. Merchants in other areas of *Madras* store the tobacco bales in *pakka* buildings with tiled or corrugated iron sheet roofs. Small platforms of wooden planks or bricks are prepared on the floors. The tobacco bales are arranged on these platforms.

In the *United Provinces*, the merchants and commission agents in most cases have *pakka* godowns with corrugated iron sheet roofs where storing is made. Many of them have their own godowns, while others use hired ones. In Cawnpore the hire charges come to about Rs. 100 per month for a godown of the storing capacity of about 5,000 maunds of tobacco. The commission agents in addition to storing their own tobacco also let out storing space to their clients a great majority of whom are small merchants, only a few being growers. The commission agents charge nothing for storing for a short period usually about a month, after this period the storing charges in some of the important markets like Farukhabad, Aligarh, Etah and Agra range from 1 Re. to 2 rupees per month for a room of 10' × 10' × 12' dimensions with a capacity of 30 to 40 maunds of tobacco. In Lucknow, the charges for the same sized room are, however, higher ranging from rupees 2 to rupees 4½/- per month. In Benares, the charges for storing are low and come to about annas 2 per package weighing about 10 maunds.

The wholesale merchants and commission agents in the *Punjab* keep tobacco in gunny sacks or bundles which are covered with palm matting. The bags or bundles of tobacco are arranged with no particular system in any available room adjacent to or remote from the shop. Occasionally the room has *pakka* floor but it is more often *kachcha* with no arrangements for any raised platform on the floor.

In Assam, the merchants store tobacco invariably in their own godowns along with other commodities. Small platforms or corrugated iron sheets are placed on the floor before stacking the tobacco bundles.

In Travancore, the merchants store chewing tobacco in fairly large rooms provided with *pakka* roofs and floorings usually of bricks and occasionally of cement plaster. The bales of tobacco are arranged one on the top of another to a height of 10 to 12 feet. Bags of *bidi* tobacco are arranged in a similar manner.

In Burma, the merchants in the assembling centres like Rangoon and Mandalay possess spacious godowns with *pakka* roofs and floors. The cigar and cheroot tobaccos are usually stored in baskets which are arranged one over the other. Sometimes loose tobacco bales are arranged one over the other, but this system is followed usually in the case of lower grade tobaccos.

(3) IN FACTORIES.

Except in the case of cigarettes, *bidis*, cigars and cheroots, the business unit of manufacture is small and such small manufacturers, including the small manufacturers of *bidis*, cigars and cheroots, who form the majority, do not stock large quantities. Such small quantities as are required to be stored, are kept in a corner of their small workshop. *Bidi* and *hookah* powders are kept in gunny bags, while *jutties* or bundles of tobacco leaves are stocked piled one over the other. In most cases the flooring of the place where storing is done is *kachcha*, but there is practically no damage or loss as the stocks are kept only for short periods of about a week or two, till they are used in manufacture.

The bigger factories (*bidi*, cigar and cheroot) have godowns which are strongly built, with tiled or corrugated iron sheet roofs, cement or stone flooring and adequate arrangements for ventilation. The *bidi* tobacco bags are piled one over the other, while cigar and cheroot tobacco leaf is stocked in gunny bales which are arranged one over the other. The tobacco bags or bales are re-arranged periodically to prevent excessive fermentation by pressure, usually once a month, though the period is shorter during the wet months.

Smaller cigarette factories store their stocks under ordinary conditions, i.e., in a specially constructed godown, with thick brick, stone or concrete walls, tiled roof, stone or concrete floor and adjustable ventilators. In such godowns the leaf tobacco is stored almost invariably in bales arranged one over the other and the quantity stored ranges from six to twelve months' requirements. Such small factories, however, manufacture only the low quality and cheap cigarettes.

The storing of cigarette tobacco for the manufacture of good quality cigarettes is, however, more elaborate. Such manufacturers consider it essential to leave tobacco in stock for about twenty-four months to enable it to mature and it is the common practice with reputed cigarette manufacturers to blend the growths of different years to produce an article of uniform quality. During storage the

harshness of tobacco disappears and smoothness in smoking develops. The problems of ageing, maturing and smoothness in smoking are extremely important in the production of good quality cigarettes and these can be best solved, so far as conditions in India are concerned, by storing cigarette tobacco leaf in godowns where temperature and humidity can be controlled. It is reported that one or two of the bigger cigarette factories store their leaf supplies under air conditioning arrangements, and the leading factories have commenced recently to store their stocks of best quality leaf in cold store where the temperature and humidity can be more effectively controlled. The leaf is said to maintain its quality for a longer period under cold storage conditions, usually with a temperature ranging from 55°F to 60°F and humidity approximately 70 per cent. The conditions prevailing under such storage help to maintain the colour of the leaf—an important factor of all cigarette leaf—unaffected for over a year and to prevent damage to leaves by insects. There are at present two cold stores in India where tobacco is stored, one at Calcutta, called the Calcutta Cold Store, Ltd., and the other at Chirala in Guntur District. The one at Chirala belongs to the Indian Leaf Tobacco Development Co., Ltd. The capacity of the cold store at Calcutta is about 600,000 cubic feet of which, it is reported, that about two-thirds is taken up by cigarette tobacco, over 90 per cent. of which is said to be Guntur tobacco, the remaining being foreign leaf imported from the United States, Great Britain, Greece and Turkey. The cold store at Chirala was constructed only in 1935 and is understood to have a capacity to store about two million lb. of leaf. In these cold stores almost the whole of the leaf is stored in hogsheads and cases, the former being more common. Some of the imported leaf from Greece and Turkey is also stored in bales packed in gunny cloth. It is the opinion of leading manufacturers that tobacco matures better when packed in hogsheads and that when packed in bales there is a possibility of waste through breakage of leaf while handling, particularly when the leaf is over-dried through inexperience.

(4) AT PORTS.

There are Government bonded warehouses at the principal ports importing tobacco and tobacco products from abroad, e.g., at Madras, Bombay, Calcutta and Travancore.

The Madras port trust warehouse affords accommodation, watching and porters' services for goods passing through its premises during transit, and the harbour dues are collected at the following rates for every 50 cubic feet of space.

		Rs.	A.	P.
Unmanufactured tobacco	2	0
Cigarettes and cigars	3	4
Tobacco dust	3	4
Cut tobacco	3	4
Tobacco sticks	3	4

An additional fee of 2½ annas per ton is levied if the goods are definitely given in the charge of the Port Trust. Its sheds are let

out to merchants for storage of their tobacco and tobacco products at their own risk. The charges for the hire of storage rooms vary from Rs. 3-12-0 to Rs. 4-8-0 per 100 cubic feet per month. Some of the cigarette and cigar exporters avail themselves of this facility.

There are only two regular bonded warehouses in Madras belonging to two leading cigar manufacturing firms, one from Madras and the other from Dindigul but under the control of the customs authorities. In these warehouses the firms manufacture cigars partly from imported tobacco under the supervision of Customs officials. It is reported that about 85 per cent. of the cigars exported from Madras are manufactured in these two bonded warehouses.

There are two Government tobacco warehouses in *Bombay* in charge of the Excise Department with an adequate control of the Customs Department. All the tobacco consumed in *Bombay* passes through the warehouse in Mint Street. There are about 90 licensed warehousemen who have hired accommodation in this warehouse for storing tobacco for consumption in *Bombay* and other parts of India. Cigarettes, cigars and *bidi* tobacco are stored in it. In the case of tobacco for consumption in *Bombay*, duty has to be paid before it can be removed from the warehouse. The quantities of country tobacco imported into the two warehouses for consumption in the city and distribution to other places, during seven years ending 1936-37 were as follows :—

Year.	Quantities in maunds.				
1930-31	1,26,453
1931-32	1,65,835
1932-33	1,04,976
1933-34	1,65,776
1934-35	1,79,074
1935-36	1,72,020
1936-37	1,03,930

The other warehouse is in Clive Street where mostly unmanufactured *bidi* and *hookah* tobaccos are stored. Most of the tobacco stored is for export abroad. Local commission agents who have taken the rooms of the warehouse on hire, charge the exporters 8 annas per bale, for temporary storage till the tobacco bales are exported to Aden.

The number of tobacco bales exported to Aden through the Clive Street warehouse during seven years ending 1936-37 were as shown below :—

Year.	No. of bales.				
1931	3,746
1932	4,654
1933	5,976
1934	4,768
1935	7,421
1936	16,074
1937	12,934

Each bale is equal to about 9 maunds in weight.

In Bengal there are a number of ports and Government bonded warehouses. Most of them are leased out to private companies and firms and a very large number of these are under the control of the Bengal Bonded Warehouse Association, Ltd. Tobacco is stored only in three of the several warehouses, of which one is entirely leased out to a cigarette firm. Tobacco for which duty has not been paid is kept under the control of the Customs Department while free and duty paid articles remain with the Bengal Bonded Warehouse Association. The storage charges collected by the Association are as follows :—

Tobacco.	Rate per month.
----------	-----------------

	Rs. A. P.
A case or a cask	0 5 0
Space occupying 10-cu.ft.	0 8 0

In the Garden Reach "A" Warehouse in Calcutta, compartments are let out at the following monthly rates of rent :—

	Rs.
Ground floor	100 per 1,000 cu.ft.
1st floor	85 Do.
2nd floor	70 Do.
3rd floor	60 Do.

The rent is chargeable as soon as the accommodation is engaged or goods are brought within the premises of the warehouse. It is levied on the basis of a month or part of a month, the shortest broken period for which it is chargeable is quarter of a month.

Many municipalities in the Mysore State possess bonded warehouses where tobacco is required to be stored by merchants and manufacturers pending payment of octroi duty levied by municipalities. The Bangalore city municipality, for example, owns a warehouse where merchants and manufacturers can store their tobacco free of charge, on condition that a merchant or manufacturer removes from the warehouse at least 240 lb. of his tobacco every month after paying the requisite octroi duty. In other cases the rent charged is Rs. 4 per month per room of about 12 ft. × 10 ft. × 12 ft. size. The rooms in the warehouse are locked and sealed in the presence of the merchant or manufacturer and the octroi officer.

In Travancore State there are four tobacco bonded warehouses or bankshalls. The names of these bankshalls and the kinds of tobacco bonded in each of them is given below :—

Name of bankshall.	Types of tobacco permitted to be bonded.
Kottar .. .. ..	.. Tinnevelly, Coimbatore and Jaffna.
Trivandrum .. .. ..	.. Coimbatore and Jaffna.
Quilon .. .. ..	.. Do.
Alleppey .. .. ..	.. Do.

These bankshalls are controlled by the State Government. They provide accommodation on rent for storing tobacco at the sole risk of the merchants who are all licensed by the State authorities. Any one desirous of bonding tobacco in a particular bankshall has first to obtain a license authorising him to do so. Each bale is given a

out to merchants for storage of their tobacco and tobacco products at their own risk. The charges for the hire of storage rooms vary from Rs. 3-12-0 to Rs. 4-8-0 per 100 cubic feet per month. Some of the cigarette and cigar exporters avail themselves of this facility.

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Year.	Quantities in maunds.				
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1st floor	85 Do.
2nd floor	70 Do.
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The rent is chargeable as soon as the accommodation is engaged or goods are brought within the premises of the warehouse. It is levied on the basis of a month or part of a month, the shortest broken period for which it is chargeable is quarter of a month.

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Trivandrum	Coimbatore and Jaffna.
Quilon	Do.
Alleppey	Do.

These bankshalls are controlled by the State Government. They provide accommodation on rent for storing tobacco at the sole risk of the merchants who are all licensed by the State authorities. Any one desirous of bonding tobacco in a particular bankshall has first to obtain a license authorising him to do so. Each bale is given a

registered number and this and the net weight are marked on the bale with tar. Duty on tobacco is collected when it leaves the bankshall on the weight recorded on entering it. The godown rent per bale of tobacco weighing about 75 lb. in the case of *Jaffna* tobacco and 100 lb. in *Tinnevelly* and *Coimbatore* tobaccos bonded in bankshall per month or fraction thereof, is one anna and six pies for *Tinnevelly* and *Coimbatore* tobaccos and six pies for *Jaffna* tobacco.

The total quantity of each of the different kinds of tobacco bonded in Government bankshalls during 1933-34 and 1934-35 is shown below :—

Kind of tobacco.	(Candies of 600 lb. each).	
	1933-34.	1934-35.
Tinnevelly	657	501
Coimbatore	6,464	5,253
Jaffna	2,542	3,909
Total	9,663	9,663

The quantity of tobacco subject to Customs duty imported into each province of British India, which remained in the Customs bonded warehouses on the 31st March, during 1928-29 to 1935-36, is as given in the Appendix LXIII. The quantities given in the statement do not include the stocks carried in the bonded warehouses in Travancore.

The statement shows that there was an abnormal rise in the quantity of tobacco in bond in India in 1930-31. In 1931-32 the stocks declined considerably but maintained very nearly the level of 1929-30. The quantity went on contracting till 1933-34, but it rose considerably in the following year and declined again in 1935-36.

In *Burma* the quantity declined steadily till 1931-32, when there was a sharp fall to 3,356 lb. as compared with 110,881 lb. in 1930-31. 1932-33 witnessed a recovery but the quantity again went on declining till 1934-35. There was a good rise in the quantity in the bond in 1935-36.

C.—Insurance of tobacco warehouses.

It is not the practice with growers and merchants in India to insure their tobacco stocks ; and although there are only a few merchants who insure their tobacco godowns, there is not a single grower insuring his tobacco store. Almost all the cigarette factories get their tobacco stocks and factories insured.

In *Madras* the insurance of tobacco warehouses is done to some extent at Guntur at the following rates charged by an insurance company :—

- (i) For fire proof or *pakka* godowns at 3½ annas per Rs. 100 per annum.
- (ii) For second class construction at 5 annas per Rs. 100 per annum.
- (iii) For third class thatched buildings at Rs. 1-4-0 per Rs. 100 per annum.

For short periods rates are as follows :—

Period not exceeding 10 days.	1/8 annual premium.
Period not exceeding 15 days.	1/6 annual premium.
Period not exceeding 1 month.	1/4 annual premium.
Period not exceeding 2 months.	3/8 annual premium.
Period not exceeding 3 months.	1/2 annual premium.
Period not exceeding 4 months.	5/8 annual premium.
Period not exceeding 6 months.	3/4 annual premium.
Period exceeding 6 months	annual rate.

The rates of insurance charges levied by another insurance company are slightly different. The company levies the following charges :—

Building.	Premium per annum (per Rs. 100).
Class I	3 annas.
Class II	4 annas.
Class III	1 rupee.

An extra charge of 25 per cent. is levied for risks taken outside municipal limits. If there are *kachcha* or thatched sheds within 50 feet but beyond 10 feet, an additional charge of one anna is levied per every Rs. 100 worth of tobacco insured ; if within 10 feet, the additional charge is 2 annas per Rs. 100 per annum.

In Bengal the insurance charges for tobacco are different for Calcutta and mofussil places. The charges for tobacco valued at Rs. 100 are as under :—

	Rate per month at Calcutta.	Rate per month in mofussil places.
	Rs. A. P.	Rs. A. P.
First class, fireproof or <i>pakka</i> godowns ..	.. 0 4 0	0 4 0
2nd class, ordinary <i>kachcha</i> or <i>pakka</i> godowns ..	.. 0 6 0	0 6 0
3rd class, <i>kachcha</i> (thatched) godowns ..	.. 1 4 0	0 8 0
4th class, <i>kachcha</i> (thatched) godowns ..	.. ..	1 4 0

If the period is less than one year, the rate is reduced by about 25 per cent.

Tobacco transported by boats to the districts of Dacca, Faridpur and Backerganj in Bengal is insured against loss by fire, theft or natural calamities at Rs. 2 for Rs. 100 worth of goods during the transit period. It is quite a common practice with cigarette manufacturers to insure their tobacco godowns, but otherwise the insurance facilities are taken advantage of by extremely few merchants and most of these are large exporters operating in Calcutta and in the Rangpur area.

In the *Charotar* (Gujerat) area of *Bombay*, insurance of tobacco stocks or godowns appears to be conspicuous by its absence. In the *Nipani* area, however, the practice of insurance is observed to a small extent, the risk covered being mostly that of fire. It is estimated that about 15 per cent. of the tobacco stocks and about one-third of the godowns in Sangli are covered by insurance. In the *Nipani* market, however, only about 5 per cent. of the stocks are insured. In Jayasingpur, an important tobacco market in Kolhapur State, nearly 25 per cent. of the tobacco stocks and 8 to 10 per cent. of the tobacco godowns are covered by insurance.

D.—Losses in storage.

It is difficult to estimate losses incurred in storing tobacco. The type and location of the warehouse and the varying methods of storage determine to a large extent the amount of wastage during storage. In tobacco there is a natural shrinkage in weight due to loss of moisture on storing. There is also deterioration in quality which is indicated by a change in the colour of the leaf, in the case of cigarette tobacco. Apart from these losses wastage may also occur due to dampness and insect attack. It has generally been observed that tobacco of poorer qualities deteriorates faster and is subject more readily to deterioration of colour and insect attack than tobacco of better qualities.

Under ordinary conditions of storing, Virginia cigarette leaf of the first grade loses colour and becomes second grade in 3 to 4 months' time, resulting thereby in a loss of about 2 annas per pound. In the course of another 4 months the leaf further deteriorates and becomes third grade involving a total loss of about 4 annas per pound in price. It is noticed that the larger the moisture contents in tobacco the greater is the extent of loss in storing. Hence no merchant in the *Guntur* area likes to store Virginia tobacco for long under conditions prevailing there. Re-ordered leaf loses in weight only to a very small extent, i.e., 1 per cent. in the first year and $1\frac{1}{2}$ per cent. during the second year, if packed in hogsheads or wooden cases and stored under cold storage conditions. Thereafter the weight of the tobacco remains almost constant. There is no deterioration in quality in the case of re-ordered leaf during storage. On the contrary, it improves in smoking quality. It has been observed that re-ordered leaf packed in hogsheads or cases is immediately despatched from the *Guntur* area either for export or to be stored in cold store on behalf of cigarette factories. Virginia leaf packed in bales loses weight and colour to a greater extent. Under ordinary conditions of storage the loss in weight comes to about 10 lb., 13 lb., 15 lb., and 17 lb. per bale (250 lb.) during the course of 6 months, 1 year, $1\frac{1}{2}$ years and 2 years respectively, but storing of Virginia leaf under ordinary conditions packed even in bales is rare, as the merchants prefer to despatch the bales immediately they are ready. The country cigarette tobacco, however, is stored for a longer period, and the shrinkage in weight, under *Guntur* conditions, on account of loss of moisture ranges from 5 to 10 per cent. in 3 to 4 months' time. In addition, it has been observed

that there is considerable damage by insects to country cigarette tobacco, sometimes to the extent of about 2 per cent. The loss in weight in the case of indigenous types of tobacco grown in the other areas of the Madras Presidency varies from one area to another depending upon the conditions of climate, storage and the quality of the tobacco stored, but it is estimated that these losses in weight amount from 10 to 15 per cent. in about 6 to 12 months' time. After 12 months the shrinkage in weight is negligible. The damage by insects is reported to be small being estimated at less than $\frac{1}{2}$ per cent.

In Bihar and Orissa the shrinkage in weight amounts to about 5 to 12 per cent. during the first year and thereafter there is practically no loss. The damage due to insects is small and estimated at about $\frac{1}{2}$ per cent. In the United Provinces the loss in weight due to shrinkage varies between 10 to 25 per cent. During the rains the tobacco gains in weight to the extent of 4 to 8 per cent., but this gain is lost in about 2 months after the monsoon is over. It may be noted, however, that with the gain in weight during the monsoon months there is a corresponding decline in the prices during the period. The damage by insects is estimated at not more than 1 per cent. of total production.

In Bombay the shrinkage in weight in the case of tobacco bundles is as high as 25 per cent. during the first three months in the Gujarat area. In the case of Nipani and Gujarat *bidi* tobacco powders, the loss in weight is less than 5 per cent. during the first eight months, after which further shrinkage in weight is negligible. The damage due to insect attack is reported to be $\frac{1}{2}$ per cent. of total production.

In the Punjab, under the existing methods of storage, tobacco loses in weight to the extent of about 18 per cent. during the first six months, after which there is practically no further shrinkage in weight. In Sind the loss is estimated at about 20 per cent. in all the tracts except Bubak where the shrinkage in weight comes to about 6 per cent. only. It is said that the damage by insects in these two areas ranges from $\frac{1}{2}$ to 1 per cent.

In Bengal and Assam the shrinkage in weight is estimated at 5 to 10 per cent. during the first 12 months, after which there is no further loss. The damage due to insects is small and estimated at about $\frac{1}{2}$ per cent.

Jaffna tobacco in Travancore shows a driage of 8 to 10 per cent. in about 12 months' time. In Cochin shrinkage in weight varies between 10 to 20 per cent. in a year. In Mysore and Hyderabad the loss in weight comes to about 5 to 10 per cent., while damage due to insects is small and estimated at about 0.5 per cent.

In Burma the shrinkage in weight due to loss of moisture is about 10 per cent. from the time the tobacco is put on the market till October. From October to March there is a further loss of about 5 per cent., thereafter there is practically no loss in weight. The damage due to insects is estimated at about 1 per cent.

Estimated monthly stocks in Nipani.

(Thousand maunds).

January	..	34	July	..	..	87
February	..	95	August	..	..	77
March	..	105	September	..	..	68
April	..	109	October	..	..	55
May	..	97	November	..	..	38
June	..	95	December	..	..	30

The stocks thus reach their lowest levels during the three months, November to January, after which supplies of the new crop begin to arrive in the market. Similar are the conditions in the other markets of Sangli and Jayasingpur in the *Nipani* area.

In *Bihar*, the maximum stocks are held in April to June after which they decline progressively till they reach their low level in December, January and February.

In the Guntur area of the *Madras* Presidency, the Virginia tobacco stocks are at their high level from February to April. These stocks almost completely disappear by May and June by which time they are sold off to cigarette manufacturers or exported abroad. The country cigarette tobacco stocks are high during May to August after which they slowly decline reaching a low level during December to March. With the manufacturers of cigarettes also the stocks are at their highest during April to June in the case of country cigarette tobacco. The leading cigarette manufacturers, however, attempt to maintain their stocks at as uniform a level as possible throughout the year and the general policy appears to be to have on hand stocks equivalent to two years' requirements.

In other areas also the stocks are at their maximum during the three or four months after the new tobacco crop appears on the market.

In *Burma*, high stocks are held during April to July after which they progressively decline reaching the minimum level about January.

G.—Carry-overs.

There are practically no carry-overs from one season* to another with the growers. But considering that all types of tobacco are required to be kept in store at least for some months before they can be used in manufacture, merchants and manufacturers are required to carry large stocks from one year to another. Taking into account the wide variations from one area to another, described below, it is estimated that the annual carry-overs in India come to about 2,03,600 tons or 456 million lb., i.e., about 35 per cent. of the

*Generally speaking the harvesting of the new crop begins as from 1st January, so the end of the season has been taken as 31st December on which date the carry-overs are taken forward.

average annual production of raw tobacco. Of this quantity the carry-overs with cigarette manufacturers are estimated at about 25 million lb. in terms of raw unmanufactured tobacco, of which about 8 million lb. is Virginia cigarette leaf. The carry-overs with cigar and cheroot manufacturers are estimated at about 40 million lb. About 43 million lb. of *bidi* tobacco, 274 million lb. of *hookah* tobacco, 65 million lb. of chewing tobacco and 9 million lb. of snuff tobacco are estimated as being carried over from one year to another.

In *Madras* roughly about 111 million lb. of tobacco is carried over to the next season. Because of the loss in weight and value under the ordinary conditions of storage, Virginia and good bright country tobaccos are not kept for the next season. Merchants in *Guntur* prefer to send their stock of Virginia and country bright leaf to bonded warehouses in London for storage, consigning it to their brokers for sale. While the superior grade Virginia is disposed of by May, inferior qualities such as Virginia brown and red (flue-cured) are held in stock even up to September and October, but they are almost invariably disposed of before the end of the year. However in a few cases, some of the better placed of growers in *Guntur* possessing adequate storage facilities retain their tobacco, mostly the country cigarette tobacco, for the next season in expectation of better prices. On the whole the growing export demand and the demand from the cigarette factories within the country tend to keep down the carry-over of cigarette tobacco, which is estimated at 11 million lb. only. The annual carry-over of cigar and cheroot tobacco in the whole of *Madras* is estimated at about 52 million lb. It is estimated that during 1934-35, in *Madras*, the carry-over of *bidi* tobacco was about 8 million lb., while that of chewing and snuff tobaccos was about 40 million lb.

In *Bengal* the carry-over is estimated at about 95 million lb. In *Bihar* and *Orissa* the annual carry-overs work out to about 23 million lb. Taking the *Bombay* Presidency as a whole, it is estimated that about 15 million lb. of tobacco is carried over from one season to another. In *Surat*, *Jayasingpur* and *Sangli* markets, the carry-overs are about 2,500 maunds, 4,000 maunds and 2,500 maunds respectively.

The annual carry-over in the *United Provinces*, the *Punjab* and *Sind* is estimated at 58 million lb., 19 million lb. and 3.7 million lb. respectively.

In *Mysore State* the carry-overs are estimated at about 9 million lb. and in *Baroda* at 3 million lb. In *Hyderabad* the annual carry-over is usually about 13 million lb.

H.—Stocks of Indian tobaccos held in the United Kingdom market.

In the United Kingdom it is the practice of all manufacturers to hold large stocks in the bonded warehouses with a view to get leaf which is sufficiently matured and aged for manufacture, and also to counteract the effects of erratic variations in the annual size, prices and quality of the tobacco crop in the producing countries.

On an average a little over 2 years' requirements are held in stock. The consumption of tobacco in the United Kingdom is increasing and to meet these heavier requirements the stocks held have also increased from year to year. Thus while in 1910 only about 200 million lb. were held in stock early in 1937 the stocks were as high as 500 million lb.

So far as Indian tobaccos are concerned, the stocks held during the past 5 years ending 1937 have ranged from 25 to 26 million lb. or roughly what would be required in about 2.43 years. In 1936 the stocks held of Rhodesian tobaccos were about 31 million lb. or 2.5 years' requirements, as against 15.7 million lb. or 1.75 years' requirements and 30.4 million lb. or 2.42 years' requirements of Canadian and Nyasaland tobaccos respectively. The stocks of American tobaccos held at the end of 1936 were about 440 million lb. as against 447.5 million lb. at the end of 1934. It is reported that by the end of 1937 the stocks of American tobaccos declined still further. This fall in the stocks of American tobaccos may be attributed in part to the higher prices and the smaller sizes of United States' tobacco crop. On an average about 2.1 years' requirements of American tobacco are held in stock.

INTER-CHAPTER SEVEN.

The length of the storage period has a profound effect on smoking quality. For the manufacture of cigarettes, tobacco is considered at its best after about two years. Tobacoo for *bidis* and cheroots should be six to twelve months old but *hookah* tobacco is sufficiently mature at the end of six months. In the course of storage tobacco becomes mellow. It is highly important to recognise, however, that while good quality tobaccos improve with somewhat prolonged storage the quality of low grade tobacco is apt to deteriorate rapidly particularly after about eight months unless very well stored under controlled conditions.

The method of storing has itself a great deal to do with the final quality of the product. Growers have very inadequate facilities and tobacco which they hold over is generally kept on the floor of the living room or cattle shed. A few grower-merchants, particularly in Guntur and Gujarat, have their own well built *pakka* godowns, but tobacco is very commonly stacked in heaps which are merely covered with gunny cloth or mats. These heaps have to be turned over periodically. The methods of storing by the larger wholesale merchants are on the whole not very much better and systematic storage in special tobacco warehouses is uncommon although in some parts, the commission agents have well-built *pakka* godowns where they store the tobacco of their clients for a charge which may range from Re. 1 to Rs. 4|8|0 per month for a lot of 30 or 40 maunds.

When stored under such ordinary conditions the tobacco loses about 10 per cent. in weight. Damage by beetles and moths is also considerable and is valued at about 10 lakhs of rupees per annum. Further, cigarette leaf held under such conditions loses colour appreciably and first grade becomes second grade in the course of

three or four months time, resulting thereby in a loss of 2 annas per lb. In the course of another four months the leaf drops another grade bringing about a total loss of 4 annas per pound in 8 months.

These losses in the course of ordinary storage are serious. It is found, however, that tobacco leaf, if properly reconditioned, packed in hogsheads or wooden cases and stored under controlled conditions of temperature and humidity loses only about 1 per cent. in weight in the first year, $1\frac{1}{2}$ per cent. in the second year and then becomes almost constant. There is practically no deterioration in colour in such cases and the tobacco improves considerably in smoking quality. There has therefore been a definite move in recent years in India to keep tobacco in cool or cold stores with a temperature ranging from 55° to 60° F. and a humidity of about 70 per cent. Apart from using existing stores special cold stores for tobacco have also been built with a distinct saving in wastage. It is desirable that this method of storage, particularly of high quality cigarette leaf should be further extended.

The seasonal fluctuations in stocks are related to the times of harvesting and stocks in India are at their maximum during the period February—July and at a minimum about December just before the new crop comes on the market. The amount of carry-over as at 31st December varies appreciably from year to year. Roughly a little over a third of the annual production of raw tobacco is normally carried over. Out of a carry-over of about 456 million lb. only 25 million lb. represents unmanufactured cigarette tobacco, about a third of which consists of Virginia type. Cigar and cheroot leaf carry-over is estimated at about 40 million lb. *Bidi* tobacco represents about 43 million lb., chewing 65 million lb., and snuff tobacco 9 million lb., whereas the normal carry-over from one year to another of *hookah* tobacco

amounts to about 274 million lb. The stocks of imported tobacco held in bond at the customs warehouses in ports vary from year to year. The amount held in 1930-31 for example was high and the stocks contracted fairly steadily till 1933-34 but have shown a tendency to rise subsequently.

Apart from the stocks of Indian tobacco held in India about 25 million to 26 million lb. of Indian tobacco is held in the United Kingdom. This at the present rate of consumption represents the requirements for about $2\frac{1}{2}$ years which is a normal figure for all kinds of tobacco held in the United Kingdom, the total stocks of which were as high as 500 million lb., in 1937.

The financing of tobacco stocks by the district Central Co-operative Bank in the Nipani area of Bombay Presidency shows signs of enterprise. The Bank advances up to 50 per cent. of the value of the tobacco through guarantee brokers at the rate of about 9 per cent. per annum plus an insurance premium amounting to about Re. 1 or Rs. 1|8|0 per cent. per annum. These charges may seem heavy but the business has increased considerably during the past three years. This may be compared with the charges made by commission agents who in some cases advance about 75 per cent. of the value of tobacco stored with them at 12 per cent. interest. Banking facilities for securing advances on tobacco appear to be backward in most districts and in view of the growing importance of the crop the improvement of such facilities needs early consideration.

CHAPTER VIII.—HANDLING AND TRANSPORTATION.

A.—Handling.

(1) ON THE FARM.

Bulk of the unmanufactured tobacco is sold on farms, where the methods of handling are simple. The leaf tobacco intended for indigenous types of consumption like *bidis*, *hookah*, chewing and snuff is first tied into bundles or hanks which are then arranged in stacks or heaps over a raised platform. The heap is then topped with dried grass or palm leaves which are covered with gunny cloth or mats. The heaps are periodically disturbed at intervals of about two to five weeks and are re-arranged, the bottom and the middle bundles being brought over to the top of the heap on each occasion. *Bidi* and *hookah* tobacco powders are usually heaped on the floor and the heap is then covered with gunny or other cloth. As already explained earlier in chapter IV considerable quantities of earth get mixed up while preparing *hookah* tobacco powder in the field. Prior to the sale, the growers usually stack the leaf or powders on their holdings either under the shade of a tree or under a thatched roof. In the case of cigarette leaf the growers arrange the leaf in the form of bales immediately after it is taken out of the curing barn or shed. Similar are the practices with regard to cigar and cheroot leaf.

After purchase the leaf is taken by the buyer or the local *dala*, on behalf of the former to the warehouse of the latter where it is generally sorted by different qualities. Sorting work is done by the *dala* in accordance with the requirements of the buyer. After sorting, the leaf is generally arranged in the form of a bundle. In the case of *hookah* and *bidi* tobacco powders the purchaser provides containers in the form of old gunny bags in which the powder is filled in at the place where purchases are made. These bags are then carted at the buyer's expense either to the railway station or to the warehouse of the local *dala* through whom the purchase was made. Usually it is the practice with the buyers to cart these bags to the warehouse of the local *dala* for storage and for further processing, as in the case of *bidi* tobacco purchased in the *Charotar* area. The bales of cigarette, cigar and cheroot tobacco are carted by the buyer to his godown at his own expense.

Handling at the farm is almost invariably done by the grower or the curer and his family, and as such, the cost of handling is negligible.

(2) AT THE ASSEMBLING AND DISTRIBUTING CENTRES AND RAILWAYS.

As explained earlier in the chapter on Assembling, the so-called tobacco markets are generally secondary markets for assembling and distribution where merchants and warehousemen bring tobacco purchased by them in villages. Even in such cases there is no one central place where the produce is collected in large quantities as happens in the case of wheat or cotton. Generally the warehouse of a *dala* or

arhatiya serves the purpose of a market. It is the general practice to weigh the leaf on the farm immediately after the price is settled and before it is transported to the assembling and distributing centres. In *North Bengal* and *North Bihar* areas, however, sometimes the leaf in bulk is transported by bullock carts to the warehouse of the local *dalal*, if the distance is short. In such cases, the tobacco leaf is neatly arranged in the carts. After receipt at the warehouse the leaf is sorted into different qualities to suit the requirements of individual merchants and bulked and baled afterwards. In the case of *hookah* tobacco powder, no further handling appears to take place in the assembling and distribution centres. With regard to *bidi* tobacco powders, the coarsely crushed leaves, as obtained from the growers, are reduced to small sized flakes, and this is done either by the buyer himself or by the assembling and distributing merchants. For this purpose the coarsely crushed leaves are further crushed by hand after which the flakes are passed through sieves of different meshes. In the preparation of leaf bundles for cheroot, chewing and snuff, the cured leaves are tied into small bundles, the best leaves being placed uppermost on the outer side of the bundle and the poorer ones in the centre. The bundles are then baled. In the case of cigarette leaf, loose bales, as received from the growers, are untied in the processing factories and graded into different qualities in accordance with the grading practices adopted by individual merchants and manufacturers. After grading the leaf may be stripped to remove the thick midribs. After the grading and stripping operations are over, the leaf is re-conditioned or re-dried. The re-drying may be done by spreading the leaf on the floor of the working shed or in the sun, but in the case of leading exporters and cigarette manufacturers, the use of the re-ordering or re-conditioning plant is more common. This plant which has been explained earlier, controls the moisture content in the leaf more accurately and the leaf re-conditioned by the re-ordering plant always sells at a premium. The re-dried leaf is then pressed and packed into bales, cases or hogsheads.

In *Burma*, the leaves as received from the growers are sorted and then tied into small bundles. These bundles are then packed in large bamboo baskets as in upper *Burma*. In lower *Burma* small bales are prepared by packing the leaves in gunny cloth.

The charges incurred in handling cigarette leaf at assembling centres have already been given in the chapter on Preparation for Market (see page 187). The processing operation of *bidi* tobacco powders takes about 4 to 8 annas per maund, while almost the same expense is incurred on the handling of cigar, cheroot and chewing tobaccos in *Bengal*, *Madras* and *Burma*. For other types and areas, the handling charge ranges from 1 to 3 annas per maund, but for *hookah* tobacco powders, the expense on handling is almost negligible.

At the railheads, unmanufactured tobacco is always received packed in bales, boxes, hogsheads or gunny bags. When tobacco packages arrive at the railway station, they are unloaded from the vehicles employed for the purpose (usually bullock carts and sometimes motor lorries) and carried to the railway sheds. This is done

by the cart-men or other labourers employed by the consignees. This work of carting the packages from the warehouse to the railway station and consigning the cases by rail is very often done by a forwarding agent (*hundekari* or *marfatia*) who charges a fixed sum for his services. In the *Charotar* area these charges amount to about Rs. 1-8-0 to Rs. 2-8-0 per 100 bags, while in the *Guntur* area the amount comes to 6 annas per bale of 250 lbs. In the United Provinces the charges amount to about a rupee per 100 to 125 maunds. In other areas the cost of handling at the railhead comes to about 3 pies per maund.

The railway sheds are generally covered at all the more important loading and unloading stations.

Except at outlying sidings, *i.e.*, sidings away from stations and belonging to a few cigarette factories, and when the special freight rate quoted is given on condition that loading and unloading will be done by the consignor and the consignee, the charges for loading and unloading at the railway stations are included in the railway freight, these services being performed by labour employed by the railway. On some railways the labourers engaged in loading and unloading work are paid monthly wages ranging from Rs. 10 to Rs. 22 per month while on others the labour is provided by contractors on rates varying from one rupee to three rupees per thousand maunds. There does not appear to be any complaint regarding handling of the tobacco packages at railway stations. Occasionally a few of the tobacco powder bags get damaged during handling, but this appears to be more due to the practice of using old gunny bags for packing. The damage, however, is considered negligible.

(3) AT RIVER GHATS.

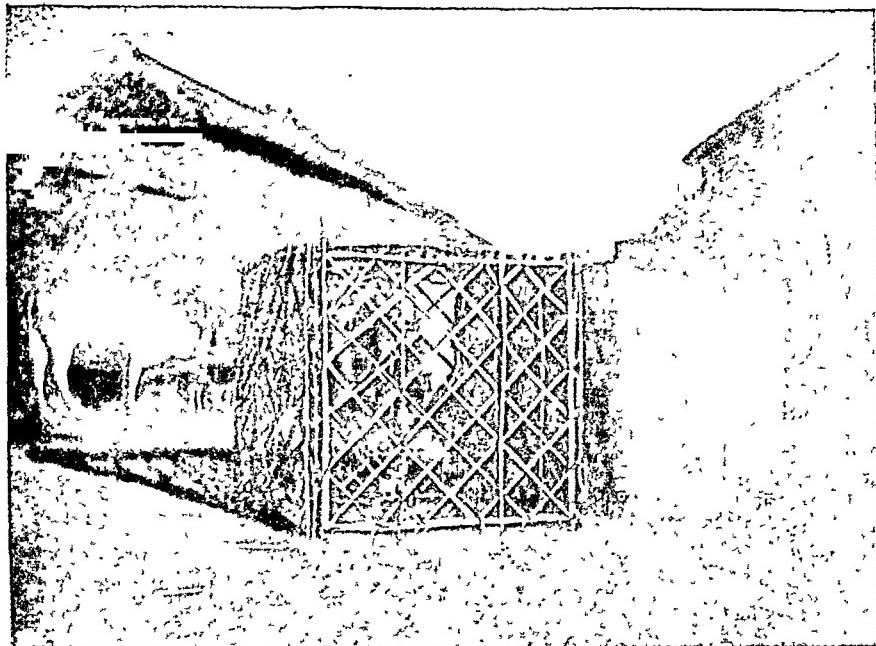
Trade by inland waterways is confined almost entirely to Assam, Bengal, Bihar, Madras and Travancore and also Burma. The loading and unloading of tobacco packages is usually done by coolies whose charges come to about 3 pies per maund. These charges have to be paid by the consignor and consignee as they are not included in the boat hire charges.

(4) AT PORTS.

Unmanufactured tobacco is always handled in bales wrapped and tied in gunny cloth or in wooden cases or hogsheads at the ports, and the loading and discharging of sea-going vessels is done by machinery.

(5) CONTAINERS.

Containers used for the transport of unmanufactured tobacco have already been discussed in the chapter on Preparation for Market. In the case of tobacco products, cigarettes are first packed either in packets or in tins. The packets are then put into a thin card-board box. These card-board boxes or tins are then packed in deal-wood cases of varying sizes. High-class cigarettes are usually packed in cases weighing about $2\frac{1}{4}$ maunds and containing about 25 to 30 thousand cigarettes. Sometimes bigger cases weighing $3\frac{1}{2}$ maunds



A bamboo crate commonly used in packing *bidis* in the Central Provinces, along with another packed with *bidis* and wrapped in gunny cloth.



A cart loaded with bags of *bidi* tobacco in the Charotar area.



Transport of tobacco by bullocks in the Punjab.



Transport of tobacco by donkeys in the Punjab.

and containing about 50 thousand cigarettes are used. Cheaper brands of cigarettes are usually consigned in bigger wooden crates weighing 3 to $3\frac{1}{4}$ maunds and containing about 50 thousand cigarettes. Some of the high-grade cigarettes are sent in smaller packages each weighing 32 seers and containing 10 thousand cigarettes. Foreign cigarettes and cut tobaccos are usually consigned in deal-wood cases each measuring 'about $3' \times 2\frac{1}{2}' \times 2'$, weighing about $1\frac{1}{2}$ maunds and containing about 15 thousand cigarettes.

Cigars are first packed in small and thin wooden boxes and occasionally in tins. These boxes and tins are then packed in wooden cases of varying sizes and weights. Some of them measure $2\frac{1}{2}' \times 2' \times 1\frac{1}{2}'$ each weighing about $1\frac{1}{2}$ to 2 maunds and containing 3 to 4 thousand cigars. Small cases measuring about $1\frac{3}{4}' \times 1\frac{1}{4}' \times 1'$ and weighing about 25 seers are also in use.

Bidis are packed in various ways. The most common method is to use bamboo crates wherein the *bidi* bundles are put in and which are then covered with a gunny cloth. Before putting into the packages, the *bidis* are first well packed in paper bundles, each containing 500 *bidis*. The bamboo crate is usually cubical in shape, each side measuring 2' and weighs about $1\frac{1}{4}$ maunds when packed (see plate facing page 280). It contains about 60 thousand small and 40 thousand large sized *bidis*. These crates cost about Rs. 20 per hundred including the cost of coir used for tying the crate. Sometimes a thin wire is used instead of coir and in such cases the cost of packing comes to Rs. 35 per hundred. Sometimes *bidis* are also packed in slightly smaller sized but stronger bamboo baskets each measuring about 21" in length and breadth and 27" in height, to hold about 60 thousand *bidis* and weighing a little over 1 maund. Such baskets cost about Rs. 30 per hundred. Occasionally second-hand deal-wood boxes are also used for packing *bidis*. Each of these boxes costs about 7 annas, weighs $1\frac{1}{4}$ maunds when packed and holds about 65 thousand *bidis*. A few manufacturers pack their *bidis* in ordinary thick gunny bags, each holding about 35 thousand *bidis* and weighing 21 seers when packed.

Manufactured *hookah* tobacco is usually packed in hessian cloth. The sizes and the weights of these packages vary even with the same manufacturer. High-class chewing tobacco is packed in air tight tins or in bottles, while ordinary chewing tobacco is packed in gunny bags, each weighing about a maund. Snuff is usually packed in bags made of thick drill cloth and also in bottles and in tins of various sizes. These bottles and tins are then packed in wooden cases for the purpose of transport.

(6) POSSIBILITIES OF BULK HANDLING.

It has been stated before that probably in no other agricultural commodity the question of quality is so important as in the case of tobacco. Its qualitative characteristics often vary from village to village and even from one grower to another. On account of this and the fact that the quality of the leaf is likely to deteriorate by

mere exposure without any container, if not by frequent handling, the chances of bulk handling of tobacco, as in the case of cotton, wheat and linseed, are remote.

B.—Transportation.

Transport—its means and cost—is the most important single factor responsible for the development of trade in any country. Transport in India, is effected by (1) road, (2) rail, (3) inland waterways and (4) sea.

(1) BY ROAD.

Almost invariably the farms and the villages are connected by unmetalled or *kachcha* roads or paths either with the assembling and distributing centres or with the metalled or *pakka* roads leading to such centres. On such roads, pack animals and carts are the only modes of conveyance most suitable for carrying tobacco from the farm to the assembling and distributing centres. Even for such modes of conveyance, the roads in some of the producing areas are far from satisfactory. In the *Charotar* area, for example, most of the village roads are *kachcha*. In fair weather these roads are full of fine dust several inches thick; and it is with considerable hardship that the bullocks pull the carts along these tracks. Immediately after the rains have set in early in June, these roads become impassable to any kind of conveyance and the journey from one village to another is to be largely done on foot.

(a) *Pack animals and headloads*.—The use of pack animals appears to be almost wholly confined to the United Provinces, Punjab and Sind, the animals most commonly used being camels, ponies, donkeys and bullocks (see plate facing page 281). Pack animals are only used when small loads have to be carried over short distances and on un-metalled and sandy roads where the plying of a cart is difficult. The load of tobacco carried by camels comes to about 3 to 6 maunds and by ponies 2 to 3 maunds.

Human labour for carrying tobacco packages as headloads is used for conveying small loads over shorter distances, say, within 5 miles. It is only in the *Nipani* area that fairly large quantities of tobacco are carried as headloads by the *Mahars* who purchase standing crop. In the *Nipani* market, it is estimated that about 5,000 maunds of *bidi* tobacco are carried in this manner by the *Mahars* every year.

(b) *Carts*.—The cart is by far the most important conveyance for carrying unmanufactured tobacco by road. Two-wheeled bullock carts drawn by a pair of bullocks are the ones used for carrying tobacco throughout the country (see plate facing page 280). Occasionally four-wheeled camel carts are also used in the United Provinces and the Punjab. An ordinary bullock cart consists of a wooden frame mounted on wooden wheels which are sometimes shod with iron tyres. The use of iron tyres for the wooden wheels appears to be more common in Bombay and Madras. Carts with pneumatic wheels are not used in carrying the tobacco traffic. This is because of the heavy initial outlay, the scarcity of good metalled

roads in the rural areas and the fact that the bulk of the road traffic in unmanufactured tobacco is confined to a short period immediately after harvest, when the cultivators themselves are free to ply their indigenous carts for hire.

The capacity of a cart varies from one area to another in accordance with the type of animals drawing the cart, the condition of roads, etc. In Bengal, an average cart can carry only about 8 to 10 maunds of unmanufactured tobacco, but in North Bihar, the contents of a cart may range from 15 to 25 maunds. In the United Provinces, Punjab, Madras and Nipani areas, a cart can carry, on an average, about 18 maunds of tobacco whereas in Burma a cart can hold only about 9 maunds. Apart from small quantities carried by headloads and pack animals from the producing villages to the assembling centres, the volume of which is estimated at not more than 1 per cent. of the total production of tobacco in the country, all the tobacco in villages is transported by carts to the assembling centres. The distance over which tobacco may be carried by carts varies in accordance with the extent of area served by a particular assembling centre. In the Guntur market, for example, tobacco is brought in by carts from villages within a radius of about 25 miles. At Palghat market, in southern Madras, bullock carts bring in tobacco even from a distance of 60 miles while a distance of 50 miles is not uncommon in other areas of the Madras Presidency and Mysore. It appears, however, that in the bulk of the assembling centres tobacco is carried by bullock carts from villages situated at a distance not exceeding 20 miles.

The transport of tobacco from the assembling centres to the rail-head or river ghat is almost invariably done by bullock carts, except in a few areas where the motor transport is available at competitive prices.

(c) *Motor transport*.—The use of motor lorry for transporting tobacco appears to be more extensively adopted only in the *Nipani* area of the Bombay Presidency. The peculiar situation of the *Nipani* market with regard to transport has helped in the development of this traffic to a considerable extent. *Nipani* is not a railway station. Tobacco from this place has to be railed either at Kolhapur or at Chikodi Road. Kolhapur is 25 miles whereas Chikodi Road is 29 miles from *Nipani*. There is, however, an out-agency of the Madras and Southern Mahratta Railway at *Nipani*, which arranges for a through booking from *Nipani*, via Chikodi Road. The road portion of the journey is done by motor trucks belonging to the railway. If tobacco is booked from *Nipani* via Kolhapur, an additional charge for road transport is taken at the rate of 2½ annas per maund. Private motor lorries carry tobacco from the *Nipani* area over fairly long distances. Tobacco packages are often transported by motor lorry from *Nipani* and Sangli to Bijapur, Dharwar or Belgaum. There are about 12 motor lorries for transporting goods from Sangli, Kolhapur and *Nipani* to Bijapur alone, each of which charges Rs. 32 to Rs. 40 per trip carrying about 60 to 80 bags of tobacco. On their return journey, the lorries bring back grain and cotton bales from Bijapur. The expense of transporting a bag of tobacco from *Nipani* to Bijapur

by motor lorry comes to about 8 annas as against 12 to 14 annas when the transport is done by rail. Dharwar is 97 miles from Nipani and it costs only 10 annas to transport a bag of tobacco by motor lorry from Nipani to Dharwar. Several merchants find it cheaper to book Nipani tobacco at Belgaum by rail. The road distance between Belgaum and Nipani is 48 miles and the hire charges by bullock carts and lorries work out to about 4 to 5 annas per bag of tobacco. The development of motor traffic in the Nipani area is very largely due to the existence of good *pakka* roads, the other factors responsible being that the motor lorries are economical because of quicker transport, cheaper freight, convenience of receiving goods at the godown of the sender and delivering them at the consignee's place and elimination of carting, handling and other charges to and from the railway station. The formalities to be gone through at the railway station for booking goods are also saved.

(d) *Aerial ropeway*.—The transport of tobacco by aerial ropeway in Devicolam in Travancore appears to be unique. This ropeway rises to the height of 4,000 feet above sea level. It is owned by the Kannan Devan Hills Produce Co., Ltd., and used principally for transporting tea from the estates on the hills down to the plains. Munnar is the chief assembling and distributing centre for raw tobacco in the Devicolam district and gets tobacco from Bodinaikannur in Madura district by means of the aerial ropeway. The cost of this mode of transport works out to about Rs. 19 per ton over a ropeway distance of 28 miles.

(e) *Cost of conveyance*.—The cost of transport by road is governed by a number of factors such as the condition of roads, the availability and the demand for carts, season, distance covered and the chances of securing loads on return journey. The hire charges on *pakka* roads are usually lower than those prevailing on *kachcha* roads. Generally long distance hauls are cheaper than short distance ones. The hire charges during the summer months are lower than those prevailing immediately after the monsoon sets in.

The average cart hire charges come to about 3 to 4 pies per maund per mile. In Bihar and the United Provinces, the charges are as low as 1 to 2 pies per mile per maund on *pakka* roads and double the amount on *kachcha* roads. In Bengal, Charotar and Nipani, cart hire charges come to about 3 to 5 pies per maund per mile, while in the Punjab, they come to about 6 pies per maund per mile.

The hire charges by motor lorry come to about two-thirds or three-fourths of the cart hire charges, while charges for carrying tobacco by pack animals range from 3 to 6 pies per maund per mile. Labour charges for carrying tobacco on headloads vary from 6 to 8 pies per maund per mile.

(2) BY RAIL.

(a) *Extent and direction of movement*.—The bulk of the trade in unmanufactured tobacco moves by rail. The average recorded imports and exports of unmanufactured tobacco by rail (and river) into and



Bags of *bidi* tobacco awaiting dispatch at Anand in the *Chaitur* area.

from the main provinces and trade blocks for the three year period, 1934-35 to 1936-37, are given in Appendix LXIV and the directional movement illustrated in the diagram facing this page.

The annual average recorded traffic in unmanufactured tobacco by rail (and river) is 32,30,500 maunds. Of the total quantity exported from the different provinces and trade blocks, 89 per cent. is accounted for by the four main tobacco producing provinces, Madras, Bihar, Bombay and Bengal. The share of Madras comes to 27 per cent. of the average exports, while the quantities accounted for by Bihar and Orissa, Bombay and Bengal come to 28, 18 and 16 per cent. respectively.

In spite of the fact that Bengal stands first among the Indian provinces with regard to tobacco production, the imports of unmanufactured tobacco into Bengal are large as compared with the imports into the other main tobacco producing provinces. Bulk of these imports are however taken by Calcutta, which is a large distributing centre for all types of tobacco. Almost four-fifths of the imports into Bengal are drawn from Bihar and Orissa and about 16 per cent. from Madras. The receipts from Bihar and Orissa comprise almost entirely of *hookah* and chewing tobaccos while those from Madras mainly of cigarette leaf. Almost three-fifths of the outward traffic in unmanufactured tobacco from Bengal goes to Assam and a little more than 30 per cent. to Bihar and Orissa. The despatches are mainly of *hookah* and chewing tobaccos.

The average exports from Bombay Presidency come to about 4,47,000 maunds as against 58,000 maunds of imports. Over four-fifths of the exports are taken by Central Provinces and Berar, Central India and Rajputana. A large quantity of cigarette tobacco is imported from Madras.

Madras exports on an average 424,000 maunds while it imports only 89,000 maunds. The outward despatches occur mostly from the Guntur area and Madras and comprise mainly of cigarette tobacco exported to Bengal, Bihar, Bombay, Mysore and Hyderabad. The exports to the Central Provinces and Berar consist almost entirely of seraps and rejections from cigarette leaf from the *Guntur* area. The imports consist mostly of *bidi* tobacco, about 86 per cent. of which are received from Mysore and about 9 per cent. from Bombay.

About three-fifths of the imports of unmanufactured tobacco into Bihar and Orissa are received from Bengal and one-third from Madras. Tobacco received from Bengal is mainly of *hookah* type while that received from Madras is cigarette leaf. Bihar has got a large outward traffic, the annual average exports being 8,94,000 maunds. About 45 per cent. of the exports are despatched to Bengal and about two-fifths to the United Provinces. The other important areas where Bihar tobacco is exported are the Central Provinces and Assam.

The average annual traffic in unmanufactured tobacco for the United Provinces is about 4,78,000 maunds imports and 1,83,000 maunds exports. Nearly three-fifths of the exports are taken by the Punjab and about one-fourth by Rajputana. Bulk of the imports

(nearly four-fifths) are obtained from Bihar. Over 70 per cent. of the imports of unmanufactured tobacco into Punjab are received from United Provinces. The bulk of the remainder is imported from Bombay and Sind. Exports from the Punjab are small and sent almost entirely to the United Provinces, Kashmir and Sind.

Central Provinces and Berar are almost entirely an importing area. About 54 per cent. of the imports are received from Bombay and 27 per cent. from Bihar. Imports from Madras come to about 17 per cent. Assam is also an, importing province. The average annual imports into Assam come to about 192,000 maunds as against 13,000 maunds of exports. The imports are received almost entirely from Bengal and Bihar.

(b) *Railway freight*.—There are three systems of charging railway freights, viz., (i) class rates, (ii) schedule rates and (iii) station to station rates.

(i) *Class rates*.—Ordinarily the station to station rates are the lowest freight rates, the schedule rates standing in between the class rates and station to station rates. In looking for the rates of freight charges, therefore, one has to first find out whether any station to station rate is applicable. If the station to station rate is not applicable, then the schedule rate has to be searched for, and in case both the station to station and schedule rates are not found applicable for any station, the class rate is then applied. For arriving at the class rates, all commodities are divided into 16 classes, for each of which the maximum and minimum rates are fixed by the Railway Board as follows :—

Class.	Maximum rate per maund per mile (pies).	Minimum rate per maund per mile (pies).
1 .. .. .. .. ..	.38	
2 .. .. .. .. ..	.42	
2-A .. .. .. .. ..	.46	
2-B .. .. .. .. ..	.50	
2-C .. .. .. .. ..	.54	
		.100
3 .. .. .. .. ..	.58	
4 .. .. .. .. ..	.62	
4-A .. .. .. .. ..	.67	
4-B .. .. .. .. ..	.72	
5 .. .. .. .. ..	.77	
6 .. .. .. .. ..	.83	
6-A .. .. .. .. ..	.89	
7 .. .. .. .. ..	.96	
8	1.04	
9	1.25	
10	1.87	
		.166

The grouping of commodities into classes is done for the purpose of arriving at the rate to be charged, when no station to station

or schedule rate is quoted, and for fixing the maximum and minimum rate per maund per mile within the limits of which all rates, of whatever kind, must be kept, subject to exceptions specially authorised by the Railway Board. Ordinarily, the maximum rates are charged by the railways, but where class rates are quoted to a figure lower than maximum rates, these are called adjusted class rates.

Indian unmanufactured tobacco falls in class 4A for which the rate of freight charged is .67 pie per maund per mile, at railway risk. The class rate charged by most of the important railways, however, is in accordance with class 4 of the above classification for which rate is .62 pie per maund per mile. Imported tobacco is charged at class 5 rates (railway risk) and at class 4A rates (owner's risk), except on the Madras and Southern Mahratta Railway where the freight is charged at class 4A rates (railway risk) and class 4 rates (owner's risk).

Where station to station or schedule rates do not exist, cigarettes, Indian cigars, cheroots and bidis are charged at class 6 rates at railway risk. Imported cigars are charged at class 8 rates (railway risk), while ordinary class rates for manufactured *hookah*, chewing and snuff tobaccos and processed *bidi* tobacco are at class 4B (railway risk) and class 4A (owner's risk). Most of the railways, however, charge freight for these types of tobaccos at class 4A rates, at railway risk, and class 4 rates, at owner's risk.

(ii) *Schedule rates.*—A schedule rate is a rate quoted on a basis lower than the maximum rate of the class. It may be on a uniform basis, such as .250 pie per maund per mile or it may vary according to distance or weight on the telescopic (cumulative) principle. A schedule rate may be quoted either per maund or per ton or per wagon. On the Eastern Bengal Railway, excepting for small modifications, the rates charged on unmanufactured tobacco produced in Bengal are telescopic schedule rates as under :—

For the first and up to 150 miles .. ..	.380 pie per maund per mile.
For extra distances above 150 miles but not exceeding 250 miles to be added to the charge for 150 miles .. .. ..	.250 pie per maund per mile.
For extra distances above 250 miles but not exceeding 400 miles to be added to the charge for 250 miles .. .. .. ..	.125 pie per maund per mile.
For extra distances above 400 miles to be added to the charge for 400 miles .. .. ..	.115 pie per maund per mile.

The major railways offer concessions for wagon-loads of cigarettes for which freight is charged at class 4A rates at railway risk and class 4 rates at owner's risk, provided the minimum weight of the consignment and the minimum distance travelled are 160 maunds and 400 miles, respectively. The Bengal Nagpur Railway offers the same concession to *bidis* with an additional condition in regard to packing. *Bidis* must be made up into bundles of 25 and again packed in strong untearable cross paper in bundles of 500 and packed in L1ICAR

sound regular-shaped gunny packages or strong bamboo boxes (*Peturas*) and the sender has to make a declaration to this effect on the consignment note.

(iii) *Station to station rates*.—These are special rates for distances between two specific points, quoted on the basis of the principle "what the traffic can bear", in cases where the normal class or schedule rates cannot be profitably applied owing to competition from motor lorries, other means of road transport, steamers and other railways. In actual practice, the Bombay Baroda and Central India and the Madras and Southern Mahratta Railways have applied station to station rates to a large number of stations in the *Churotar*, *Nipani* and *Guntur* areas.

Specimen station to station or special freight rates on unmanufactured tobacco between a few of the important producing and consuming centres are as shown below :—

From	To	Railway.	Distance (Miles).	Calculated class rate (per maund).	Special rate charged (per maund).
1. Anand ..	Howrah (<i>via</i> Agra Cantt.).	B. B. & C. I. E. I. ..	536 794 <hr/> 1,330	Rs. A. P.	Rs. A. P.
2. Nadiad ..	Do. ..	B. B. & C. I. E. I. ..	547 794 <hr/> 1,341	4 4 8	1 14 0
3. Nipani (Out-Agency).	Shalimar—Calcutta (<i>via</i> Chikodi Road and Waltair).	M. & S. M. B. N. ..	789 545 <hr/> 1,334	4 5 3	1 14 0
4. Sangli ..	Shalimar—Calcutta (<i>via</i> Waltair).	M. & S. M. B. N. ..	835 545 <hr/> 1,380	4 9 0	2 0 0
5. Jayasingpur ..	Do. ..	M. & S. M. B. N. ..	837 545 <hr/> 1,382	4 8 3	2 0 0
6. Kolhapur ..	Do. ..	M. & S. M. B. N. ..	859 545 <hr/> 1,404	4 8 9	2 0 0
				4 9 11	2 0 0

Similar concessions of special rates are given for traffic from Guntur to Bombay, Andheri, Borivli and Bandra where cigarette factories are located. There is, however, a much larger traffic in cigarette tobacco from the Guntur area to Calcutta and Monghyr to which places special rates are quoted from Guntur and Chirala with certain conditions in regard to the amount of load and handling. The conditions and the special rates quoted from Guntur and Chirala to Shalimar and Monghyr as compared with the calculated class rates are given below :—

From	To	Railway.	Distance (Miles).	Calcu- lated class rate (per maund).	Special rate charged (per maund).	Conditions. *
Guntur ..	Shalimar—Calcutta (via Tenali and Waltair).	M. & S. M. B. N. ...	237 545	Rs. A. P.	Rs. A. P.	
Chirala ..	Monghyr (via Waltair and Asansol).	M. & S. M. B. N. ... E. I. ...	782 273 605 164	2 9 9 1 8 7	OR. W/200, L. and W/120 if packed in casks.	
Guntur ..	Do. ..	M. & S. M. B. N. E. I. ...	253 605 164	1,042 3 6 10 2 3 11	OR. C/400, I. and W/120 if packed in casks.	
				1,022	3 5 0 2 3 3	Do.

In spite of these special or station to station rates given by certain railways on Indian unmanufactured tobacco, it may be observed that the railway freights are not in proportion to the value of tobacco or tobacco products transported. Thus, while a maund of unmanufactured tobacco, which may be worth even less than Rs. 10, is charged at .62 pie per mile, a maund of cigarettes valued at Rs. 140 or even more is charged only at .83 pie per mile. The rate for *bidis* is the same as for cigarettes though the value of the former may be only about Rs. 50 per maund, or just a little over one-third the value of the latter.

* OR = Owner's risk. C/400 = Minimum consignment of 400 maunds. W/120 or W/200 = Minimum wagonload of 120 or 200 maunds. L = Owners to load and unload.

To all the three systems of charging railway freights, an addition is made to the freight rates on account of short distance charge which is usually 3 pies per maund for bookings to a distance of less than 75 miles. Further, additions are made on account of terminal charges.

(c) *Terms of booking.*—As soon as the packages containing tobacco or tobacco products arrive at the railway station yard, they are taken charge of by the goods clerk, weighed, labelled and loaded into a wagon. Usually all packages in a small consignment are weighed. But if it is a wagon-load consignment, only about 10 to 20 per cent. of the packages may be weighed provided all the packages of the consignment are of the same size and weight and it is declared by the consignor that the weight of each of them is the same.

Charges on account of loading and unloading at the railway stations are included in the freights, except at special sidings of cigarette factories or when the special rate quoted by the railway clearly indicates that the loading and unloading will have to be done by the consignor and the consignee. The goods and delivery clerks are responsible for supervising the loading and unloading work done by the railway coolies. The watch and ward staff of the railways look after the goods awaiting shipment and delivery. Generally, all packages are kept under covered goods-sheds, but during rush periods when sufficient space in the goods-sheds is not available, they are kept in the open on the platforms awaiting loading in the wagons (see plate facing page 284). When the packages are lying in the open for a short time, tarpaulin cloth may be used as covering to protect the goods from exposure to the sun and the rain.

Indian unmanufactured tobacco is generally booked at railway risk, except on the Eastern Bengal Railway which quotes schedule rates at owner's risk and on the Madras and Southern Mahratta Railway which offers specially reduced rates between certain points at owner's risk. Cigarettes, cigars, cheroot and *bidis* are normally booked at railway risk. In the case of cigarettes, however, booking can be done at owner's risk also, when the consignment is a wagon-load. Similar concession is given for *bidis* booked by the Bengal Nagpur Railway in wagon-loads. Processed or manufactured *hookah*, chewing, *bidi* and snuff tobaccos and imported tobacco can be booked either at railway risk or at owner's risk.

Tobacco and tobacco products are invariably transported in covered wagons. On the narrow gauge lines the capacity of a wagon may range from 9 to 11 tons, while on the broad gauge it may be 14 to 24 tons. Generally, no insufficiency of the supply of wagons is experienced in any of the important tobacco producing areas.

Demurrage is levied on vehicles ordered and waiting to be loaded by consignors or on loaded vehicles waiting to be unloaded by consignees, when the time allowed free by railways for loading or unloading the consignments is exceeded. Wharfage, on the other hand, is levied on goods waiting at a station to be consigned, i.e., brought to the station but for which a consignment note has not been received or on goods waiting to be delivered after they have been

made available for delivery, when the time allowed free by railways is exceeded. The free time allowed before demurrage accrues is 9 hours of daylight after which demurrage is charged at the rate of 1 anna per ton per hour on the capacity of the wagon. The free time allowed before wharfage accrues in respect of consignments waiting to be consigned is generally upto midnight of the day next following that on which goods are brought to the station, and for consignments waiting to be delivered, ranges from 24 to 72 hours according to the nature and importance of the station and the facilities for storage available in the goods shed. The wharfage charges are usually recovered at the rate of 3 pies per maund or part of a maund per day or part of a day in excess of the free time.

Apart from the railway freight, the consignor and the consignee have to spend a small extra amount on account of miscellaneous expenses at railway stations to facilitate booking, proper handling of the packages and delivery.

(3) BY INLAND WATERWAYS.

The main attraction for transport by inland waterways is its comparatively lower cost. It is however always a slower means of transport than railways, more particularly when country boats are made use of. Other disadvantages are that the boatmen frequently tamper with tobacco packages and that tobacco is always likely to be damaged on account of the humid atmosphere and insufficient protection from sun and rain and against water percolating through the seams in the sides of country boats.

There are three kinds of inland waterways, *viz.*, river, canal and backwaters. Traffic in tobacco by inland waterways is almost entirely confined to Assam, Bengal, Bihar, Madras, Travancore and Burma. Bales of tobacco carried by the river steamers are recorded for some stations by the Department of Commercial Intelligence and Statistics, and included in the Rail and River-borne Trade Returns published monthly, but no records exist of traffic by country boats, which handle the bulk of the tobacco traffic by internal waterways.

There is considerable variation in the carrying capacity of country boats. In Bengal, a country boat can carry, on an average, about 400 maunds. In Bihar, on the other hand, the boats are smaller with a capacity of 100 to 150 maunds. In Assam, the capacity ranges from 40 to 300 maunds, while in Burma it is from 90 to 130 maunds. In Travancore, the boats hold on an average 110 to 120 maunds of tobacco. Boats of larger capacity are generally used for long distance transport.

Bengal.—In Bengal, it is estimated, that about half the production is moved by river from the producing to the assembling and distribution centres. At least half the export of Bengal tobacco to Bihar are transported by river, of which about two-fifths are carried by country crafts and the rest by river steamers. The transport charge by country boat from Cooch Behar to Manickgunj (about 300 miles) comes to about 5 to 8 annas per maund, with an additional insurance charge of Rs. 2 per 100 rupees worth of tobacco.

The freight from Cooch Behar to Jalakati (400 miles) comes to about 4 to 8 annas per maund, in addition to the insurance charge of Rs. 2 per 100 rupees worth of tobacco. The steamer freight charge by river from Calcutta to Patna comes to about Re. 0-11-9 per maund as against about Rs. 1-1-0 per maund by rail.

Bihar.—About a third of the total traffic in unmanufactured tobacco within the province of Bihar is accounted for by river traffic, bulk of which is carried by the country craft. Almost all the work of carrying tobacco from North to South Bihar across the river Ganges is done by country boats. Long distance transport is usually done by river steamers, belonging to the India General Steamer Navigation Company or the Bengal and North-Western Steamer Navigation Company. Generally, the country boats charge about half the fare charged by river steamers. For example, while the steamers charge about 8 to 9 annas for carrying a maund of tobacco from Patna to Dacca, the country boatmen charge only 4 to 6 annas per maund for the same distance.

Madras.—Considerable amount of tobacco moves along canals of the Kistna and Godavari rivers. *Lankas* tobacco is transported upto Rajahmundry and Coconada while canal traffic as far down as Madras also takes place along the Buckingham canal. Canal transport also occurs in Guntur to Coconada for export trade. The annual volume of traffic that moves by these canals in tobacco and tobacco products ranges from 3 to 4 thousand tons per year. From Guntur, part of the shipments to Coconada are transported by canal from Chibrole, 9 miles from Guntur. The railway freight from Guntur to Coconada comes to about Rs. 1-14-0 per bale of 250 lb., while the canal transport from Chibrole to Coconada costs only 6 annas per bale, in addition to which 2 annas have to be paid on account of cart hire from Guntur to Chibrole.

Assam.—More than half the annual trade as well as the import trade in Assam takes place by river, river steamers being more extensively used for the purpose than the country craft. The imports of tobacco from Bengal and Bihar are very largely effected by river transport. The freight for sending tobacco from Kharupetia to Gauhati, about 35 to 40 miles apart, by boat and steamer works out at 1 anna and 3½ annas per maund respectively. The charges by river steamers from Patna to Sylhet work out at about 4 to 5 annas per maund while from Cooch Behar to Ajmerganj come to 12 annas to one rupee per maund.

Travancore.—Travancore has over 200 miles of canals and backwaters, and transport by water dominates other forms of transport. Most of the important distributing and consuming centres in the central and north Travancore get their supplies of tobacco by rail to Ernakulam in Cochin State and thence by backwaters to Travancore. The cost of transport works out at .4 pie per maund per mile.

Burma.—In Burma, tobacco is mostly grown on river banks and islands and the chief means of transport from the producing area to the assembling and terminal markets is the country boat, carts being

employed, in the first instance, to carry tobacco from the cultivators' holdings to the boat. The transport charges by country boats work out to about an anna per 360 lb. per mile. The rates of freight charges by the river steamers belonging to the Irrawaddy-Flotilla Company per 100 viss (360 lb.) of tobacco from Myingyam to Rangoon (550 miles) come to Rs. 4-2-0 while from Henzada to Rangoon (147 miles) work out to 12 annas. The special rate charged by the Burma Railways from Myingyam to Rangoon is Rs. 4-13-0 per 100 viss (360 lb.).

(4) BY SEA.

(a) *Coastal trade.*—There is a considerable amount of coastal trade in tobacco and tobacco products in all the maritime Indian Provinces and Burma. There are two distinct types of coastal trade, one among the ports of the same province and the other from the ports of one province to those of another.

The volume of internal coastal export and import trade among the ports of the same province ranges from 3·3 to 3·6 million lb. of tobacco and tobacco products valued at 12 to 15 lakhs of rupees. Over 70 per cent. of this trade consists of unmanufactured tobacco, the remaining being accounted for by tobacco products of which cigarettes account for a third.

The bulk of the coastal trade is however inter-provincial. The total coastal export trade of the five maritime provinces of India, Bengal, Madras, Bombay, Sind and Orissa comes to about 21·3 million lb. valued at 128·5 lakhs of rupees (average for 3 years ending 1936-37). Of this volume, unmanufactured tobacco accounts for 15·6 million lb. valued at 27·8 lakhs of rupees. Export of cigarettes come to about 3 million lb. valued at 87·2 lakhs of rupees, while those of other sorts of manufactured products come to 2·7 million lb. valued at 13·5 lakhs of rupees. The average total coastal imports amount to 8·8 million lb. valued at 49·4 lakhs of rupees, of which unmanufactured tobacco accounts for 6·5 million lb. valued at 12·6 lakhs of rupees, cigarettes 0·6 million lb. valued at 27·9 lakhs of rupees and other sorts of tobacco products 1·7 million lb. valued at 8·9 lakhs of rupees.

Figures of annual average coastal export and import trade in tobacco and tobacco products of the maritime Indian provinces and Burma are given in Appendix LXV.

On an average, Bengal imports 3·8 million lb. of Indian unmanufactured tobacco chiefly from Bombay and Burma, and to a small extent from Madras, valued at 5·3 lakhs of rupees. Coastal imports of cigarettes into Bengal on an average come to 165,000 lb. valued at 7·8 lakhs of rupees. Bulk of these cigarettes are received from Sind, Madras and Burma. Imports of other tobacco products come to 375,000 lb. valued at 2·4 lakhs of rupees and consist mainly of *bidis*, cigars and cheroots from Madras, cheroots from Burma and small quantities of *bidis* and pipe tobacco from Bombay. Coastal export trade of Bengal is much larger, consisting very largely of unmanufactured tobacco, the average annual exports of which come

to about 12 million lb. valued at 18·6 lakhs of rupees. Almost 90 per cent. of these exports are sent to Burma. Over half the export takes place from the Chittagong port and the remainder from Calcutta. Small quantities of Bengal tobacco are also exported to Madras and Sind, by coastal steamers. Exports of cigarettes which are shipped mostly to Burma and Madras, on an average, come to 537,000 lb. valued at about 14 lakhs of rupees. Exports of other sorts of manufactured tobacco, consisting almost entirely of *bidis* and prepared *hookah* and chewing tobaccos come to a little less than a million lb. valued at about 5 lakhs of rupees. These indigenous tobacco products are exported mostly to Burma.

The average annual coastal imports of tobacco and tobacco products into Madras amount to about 2·4 million lb. valued at a little over 13 lakhs of rupees. Of these, unmanufactured tobacco accounts for a million lb. valued at a little over 4·5 lakhs of rupees, more than half of which is received from Bombay, the remaining being obtained almost wholly from Bengal. Imports of cigarettes account for about 205,000 lb. valued at over 4 lakhs of rupees received almost entirely from Bombay and Calcutta. The average imports of other tobacco products are about 1·1 million lb. valued at 4·5 lakhs of rupees. Over four-fifths of these consist of *bidis* received from Bombay, the remaining consisting of *bidis* received from Calcutta and cheroots from Burma. The average annual coastal exports from Madras Presidency amount to about 1·8 million lb. (4·2 lakhs of rupees) of unmanufactured tobacco, 2·2 million lb. (60·7 lakhs of rupees) of cigarettes and 230,000 lb. of other tobacco products valued at 2·8 lakhs of rupees. Over three-fifths of unmanufactured tobacco is exported to Burma which annually takes, on an average, about a million lb. of Madras tobacco leaf. Small quantities are exported to Bengal, Bombay and Sind. About four-fifths of the cigarettes are exported to Burma, the remaining being sent almost wholly to Bengal. Over half the export trade in other sorts of manufactured products consists of *bidis*, the remaining being accounted for by cigars and cheroots. About three-fifths of the *bidis*, cigars and cheroots exported from Madras are sent to Bengal. Burma takes about 15 to 20 per cent. while the remaining quantity is exported to Bombay and Sind.

Bombay has a much smaller coastal trade in tobacco and tobacco products as compared with Bengal and Madras. The average annual coastal imports of unmanufactured tobacco come to 313,000 lb. valued at only Rs. 71,000, bulk of which is received from Madras. The value of imports of cigarettes is larger, being, on an average, 5·7 lakhs of rupees, received mostly from Karachi and Rangoon. Imports of other tobacco products, consist very largely of cigars and cheroots and come to about 89,000 lb. valued at Rs. 46,000, received very largely from Madras and Burma. The coastal export trade of Bombay is larger than the coastal import trade. On an average 1·7 million lb. of unmanufactured tobacco valued at 4·8 lakhs of rupees are exported annually. About half of these exports are sent to Madras, while bulk of the remainder is exported to Calcutta. Small

quantities are also exported to Karachi, Kathiawar ports, Portuguese territory and Travancore. About 269,000 lb. of cigarettes valued at over 12 lakhs of rupees are exported, about half of which are sent to Karachi. A little over a third is exported to Madras, while the remainder is shipped mostly to Kathiawar ports. Exports of other tobacco products, consisting almost entirely of *bidis*, come to about 1.5 million lb. valued at 5.5 lakhs of rupees. Over four-fifths of these exports are sent to Madras, the remainder being shipped to Kathiawar and Portuguese ports, Travancore and Bengal.

The coastal export and import trade in tobacco and tobacco products in Sind is smaller than that of Bombay. Karachi imports on an average about 1.1 million lb. of unmanufactured tobacco valued at 1.9 lakhs of rupees. About 90 per cent. of these imports are received from Burma, Bengal and Madras, in almost equal shares. The remaining portion is received from Bombay and Kathiawar ports. Imports of cigarettes, on an average, come to 138,000 lb. valued at a little over 10 lakhs of rupees, received almost entirely from Bombay. Imports of other tobacco products consisting almost wholly of cigars, cheroots and *bidis* come to 90,000 lb. valued at 1.5 lakhs of rupees. *Bidis* are received almost entirely from Bombay while cigars and cheroots are obtained from Madras and Burma. Sind has also got a small coastal export trade. On an average about 79,000 lb. of unmanufactured tobacco worth Rs. 13,000 is exported, very largely to Kathiawar ports and Bombay. Exports of cigarettes come to about 10,000 lb. valued at Rs. 46,000 about half of which are sent to Bombay while the remainder is shipped almost entirely to Calcutta.

Orissa has the smallest coastal trade which consist almost entirely of imports of unmanufactured tobacco, which on an average, come to about 165,000 lb. valued at Rs. 14,000.

Burma has got the largest coastal import and export trade in tobacco and tobacco products as compared with any of the five maritime Indian provinces. On an average, Burma imports about 12 million lb. of unmanufactured tobacco valued at 21.7 lakhs of rupees. Almost 90 per cent. of these imports are received from Bengal and the rest from Madras. Imports of cigarettes on an average come to 1.8 million lb. valued at 55.6 lakhs of rupees. About three-fifths of these cigarettes are received from Madras and the remainder from Bengal. Imports of other tobacco products consisting mainly of cigars, *bidis*, and prepared *hookah* and chewing tobaccos, come to about 270,000 lb. valued at 2.1 lakhs of rupees. Cigars are wholly received from Madras while all the *bidis* and prepared *hookah* and chewing tobaccos are obtained from Bengal. The coastal export trade of Burma is smaller. On an average about 2.3 million lb. of unmanufactured tobacco valued at 2 lakhs of rupees are exported, almost wholly, to Bengal. Small quantities are also sent to Madras and Sind. Exports of cigarettes, on an average, come to 18,000 lb. valued at Rs. 63,000. About 80 per cent. of the cigarettes are sent to Madras and the remainder to Bengal. Exports

of other tobacco products, the bulk of which consists of cheroots, come to 214,000 lb. valued at 1.5 lakhs of rupees on an average. About half of these exports are sent to Bengal, while the balance is shared by Madras, Bombay and Sind.

The rates of freight on tobacco transported by coastal steamers vary from time to time in accordance with supply and demand. The existing freight rates on unmanufactured tobacco from Calcutta and Chittagong to Rangoon range between 8 to 9 annas per maund. Certain steamship companies give a rebate of 15 per cent. on these rates. From Bombay to Cochin and Travancore ports, the present freight rates come to Rs. 9-2-0 per shipping ton of 20 cwts., less 10 per cent. rebate. The freight charged for shipping unmanufactured tobacco from Madras to Calcutta (for bales) and Rangoon (for bales and cases) is Rs. 11 and Rs. 32-8-0 respectively, per shipping ton of 20 cwts. or 50 cubic feet. When tobacco bundles are shipped from Madras to Rangoon, the freight charges are Rs. 2-10-0 per 168 lb. Speciially reduced freight rate appears to be given by a shipping company on tobacco shipped from Coconada to Calcutta which comes to only Rs. 5 per ton of 50 cubic feet. The freight from Coconada to Rangoon is Rs. 4 per bundle of 168 lb.

(b) *Foreign trade.*—This has already been discussed in Chapter I. Exports of unmanufactured tobacco are the most important, accounting for nearly 97 per cent. in quantity and 95 per cent. in value of the total annual exports of tobacco and tobacco products to foreign countries. Over three-fifths of the exports of unmanufactured tobacco occur through the ports of Madras. Bombay comes for about one-fifth while exports from Bengal and Burma come to about 11 and 8 per cent. respectively of the total exports of unmanufactured tobacco.

Tobacco for export is shipped by one of the regular steamer services. As compared with the exports of some of the other agricultural products like cotton, jute, and oilseeds, the exports of tobacco are small, and as such, in no case tobacco is shipped in full cargoes by chartering a whole steamer. It is always shipped in small lots known as " parcels".

Ordinarily, rates of freight vary from month to month in accordance with the supply of and demand for space in vessels. This is particularly so at Bombay which is a free market for freights. At Calcutta and Madras, however, the freight rates are determined periodically by a conference of the shipping lines. A rebate of 10 per cent. is granted under certain conditions to shippers provided they ship all their consignments by the conference steamers. The rebate is generally given only on exports to the United Kingdom ports.

The rates of freight on unmanufactured tobacco are charged on the basis of volume. Almost all the tobacco shipped from Bombay is exported to Aden. The existing freight rates from Bombay to Aden are Rs. 1-4-0 per cwt. for unmanufactured tobacco packed in gunny bags and Rs. 12-8-0 per 40 cubic feet when packed in bales.

Prior to June 1937 the rates of freight on tobacco exported from Madras to the United Kingdom ports were as below :—

Per 50 cubic feet.

	Ports.					Bales.	Casks.
London	£ s. d.	£ s. d.
Liverpool	0 50 0	0 45 0
Manchester		
Glasgow		
Belfast	0 72 6	0 70 0
Southampton	0 58 6	0 53 6
Bristol	0 62 6	0 55 0
Avonmouth	0 55 0	0 50 0

From June 1937 to date (June 1938) the freight rates have been as below :—

Per 50 cubic feet.

	Ports.					Bales.	Casks.
London	£ s. d.	£ s. d.
Liverpool	0 55 0	0 50 0
Manchester		
Glasgow		
Belfast	0 77 6	0 75 0
Southampton	0 63 6	0 58 6
Bristol	0 67 6	0 60 0
Avonmouth	0 60 0	0 55 0

The freights from Coconada vary from time to time. The existing rates to Japan range from Rs. 11-8-0 to Rs. 14 per ton of 50 cubic feet, varying with different shipping companies and in

accordance with the port of destination, while those to London come to about 52 shillings for the same quantity. From Madras to Japan, the present freight charges come to about Rs. 17-8-0 per ton of 50 cubic feet. Exports from Calcutta port are small and freights to the United Kingdom ports range from 45 to 49 shillings for tobacco in bales and from 50 to 55 shillings for tobacco in hogsheads per 50 cubic feet. The freight to Japan from Calcutta on unmanufactured tobacco comes to about Rs. 20 per 50 cubic feet.

The large quantity of *Jaffna* tobacco imported from Ceylon into Travancore arrives by sea in small sailing vessels (schooners). These schooners are driven by wind and in good weather take about 3 days from Jaffna to Quilon. After stopping in Travancore for 3 to 4 days, they carry back fishing canoes, tiles and timber to Ceylon. The capacity of a moderately sized schooner is about 67 tons. The cost of transport of tobacco from Jaffna to Quilon amounts to about Rs. 15 to Rs. 17 per ton.

[Handling and transportation

INTER-CHAPTER EIGHT.

Excepting the powdered *bidi* and *hookah* tobaccos which, to some extent are handled in bulk on farms, all types of tobacco are handled in containers such as gunny bags, bales, boxes and hogsheads. On account of the large variations in quality, even in the same type, and the fact that the quality of the leaf deteriorates by exposure and frequent handling, the possibilities of bulk handling of tobacco are remote.

One outstanding feature of the trade seems to be the frequent sorting and re-sorting of the unmanufactured tobacco at almost every stage. It seems that the necessity for this constant handling to suit the requirements of different merchants and manufacturers could be minimised by the adoption of standards in regard to quality, moisture contents and packing.

Most of the traffic in tobacco moves by rail, the annual average traffic in unmanufactured tobacco by rail (and river) being over 32 lakhs of maunds. The railway freight forms a high proportion of the total costs of distribution, particularly in the case of cheaper types of unmanufactured tobacco like *hookah* and chewing. The rates of freight are not in proportion to the value of tobacco or tobacco products transported. Thus, while a maund of unmanufactured tobacco, which may be worth even less than Rs. 10, is charged at .62 pie per maund per mile, a maund of cigarettes valued at Rs. 140 or even more is charged only at .83 pie per mile. The rate for *bidis* is the same as for cigarettes though the value of the former may be only about Rs. 50 per maund, or just a little over one-third the value of the latter.

Transport by road is of importance only in areas like Nipani where good metalled (*pakka*) roads exist.

In the Nipani area, merchants often prefer to transport their tobacco packages by road in motor lorries to Belgaum, Bijapur, Dharwar and other places in the south of the Bombay Presidency. The expense of transporting a bag of tobacco from Nipani to Bijapur by motor lorry comes to about 8 annas as against 12 to 14 annas when the transport is done by rail. Even after paying a little extra, merchants prefer transport by motor lorry because of the quicker transport over short distances, the convenience of receiving goods at the godown of the sender and delivering them at the consignee's place, elimination of carting, handling and other charges to and from the railway station and the saving of formalities that have to be gone through at the railway station in booking goods.

The competition from rivers, canals and backwaters is confined almost entirely to Assam, Bengal, Bihar, Madras, Travancore and Burma. Transport by water is cheaper than by rail. For example, the steamer freight charge by river from Calcutta to Patna comes to about Re. 0-11-9 per maund, as against about Re. 1-1-0 per maund by rail. The railway freight from Guntur to Coconada comes to about Re. 1-14-0 per bale of 250 lb., while the canal transport from Chibrole to Coconada costs only 6 annas per bale, in addition to which 2 annas have to be paid on account of cart hire from Guntur to Chibrole. In Travancore, the cost of transport by backwaters comes to about .4 pie per maund per mile as against .62 pie per maund per mile charged by railways on unmanufactured tobacco on the basis of class rates.

There is considerable inter-provincial coastal trade, the average total coastal export trade being about 21.3 million lb. valued at 1,28.5 lakhs of rupees.

CHAPTER IX.—WHOLESALE DISTRIBUTION OF UNMANUFACTURED TOBACCO.

The movement of the produce from the grower to the wholesaler or manufacturer or the first buyer has already been described in Chapter V on “Assembling”, after which the next stage in the passing of unmanufactured tobacco from the producer to the consumer is distribution. Almost all the agencies engaged in the assembling of tobacco also function in its distribution.

A.—Agencies and methods.

The distribution of unmanufactured tobacco is done by one or more of the following agencies : (1) Growers, professional curers, village merchants and moneylenders, (2) Commission agents and wholesalers, (3) Manufacturers, (4) Co-operative societies and (5) Exporters.

(1) GROWERS, PROFESSIONAL CURERS, VILLAGE MERCHANTS AND MONEYLENDERS.

As has already been explained earlier, the bulk of the crop is sold in villages by the growers, professional curers, village merchants and moneylenders to the wholesale merchants, manufacturers and exporters. In all the tobacco producing areas, however, a few growers sell small quantities direct to consumers of their own and neighbouring villages. Sales of this type are not, however, popular with many growers for the reason that besides the demand being uncertain and irregular they are often forced to sell the produce to friends and other acquaintances on credit. Occasionally the growers also sell their produce to retailers at the local fairs and *hats* and there are a few cases where the produce is carried by the growers over fairly long distances for the purpose of sale direct to consumers, small retailers and manufacturers. Thus, for example, in Bihar, it is a common practice with a number of growers to sell a small quantity of leaf every time the local fair or *hat* is held and it is estimated that about 85,000 maunds of tobacco is disposed of by the Bihar growers in this manner. In Bombay Gujarat, a few growers from the Sanand *taluka* carry their tobacco from village to village in their own carts for sale, in parts of Kathiawar and Cambay. From these people, annual requirements of tobacco are purchased by small retailers and manufacturers in Kathiawar and Cambay through the local *dalals* who take the responsibility of payment of money to the growers on getting a commission of an anna per maund. The cartmen proceed on their way distributing tobacco and collect money on their return journey. The total quantity of tobacco thus distributed is, however, small being estimated at about 2,000 maunds every year. In the *Charotar* area also, there are a few cases of growers who book their supplies, augmented by purchase from neighbours, by rail to Bardoli *taluka* of Surat district and sell them in the villages of that tract by hiring out carts to visit several villages for selling. Similar direct sales to consumers and retailers of small quantities of unmanufactured

tobacco are found to be prevalent in the Nipani area, but it appears that the practice of selling to consumers in the annual fairs is more common in this area. Thus at the annual fair of Yerad in Satara district, it is estimated, that over 3,000 maunds of unmanufactured tobacco are sold by the growers to consumers who assemble at the fair. It is estimated that in the whole of the Bombay Presidency about 10 per cent. of the annual production is distributed by the growers themselves to the small retailers, small manufacturers and consumers. In other provinces where tobacco is grown on a smaller scale, the distribution of the surplus is very largely done by the growers by selling direct to retailers or consumers. Thus, in the Central Provinces and Berar where 90 per cent. of the production is retained by the growers themselves for domestic use, the surplus is almost invariably disposed of by selling to small retailers and consumers in the local village bazzars.

The professional curers who buy green leaf from the growers, almost invariably sell their cured leaf to wholesalers, manufacturers and exporters, usually in villages. The village merchants and moneylenders also part with their produce in a similar manner ; but more often in markets.

(2) COMMISSION AGENTS AND WHOLESALERS.

The commission agents and wholesalers who make their purchases mostly in villages through or from the village *dalal*, *bania* or moneylender form probably the most important link in the chain of distribution of unmanufactured tobacco. These agencies assemble and distribute almost four-fifths of the total annual production, apart from the purchases made directly from villages by big manufacturers. Bulk of the requirements of the raw material as demanded by manufacturers are supplied by the commission agents and wholesale merchants. It is these agencies who act as stockists and supply unmanufactured tobacco throughout the year.

Most of the leading commission agents and wholesalers who operate in big consuming centres and leading distributing markets maintain their own organisation in the producing area which is kept constantly informed of the market conditions. This is particularly so in the case of *bidi*, cigarette, cigar and cheroot tobaccos. In the case of other commission agents and wholesalers, they keep their clients regularly informed about supply and price conditions in the market.

(3) MANUFACTURERS.

Almost all the leading manufacturers of cigarettes and *bidis* make their purchases direct in the villages of production with or without the help of the local *dalals* in the producing areas. The Tobacco Manufacturers (India), Ltd., and the Cigarette Manufacturers (India), Ltd., make their purchases through the Indian Leaf Tobacco Development Co., Ltd., which buys cigarette leaf direct from the growers and professional curers either by making contract with the growers and curers to which a reference has already been made earlier, or in the open market in villages. A few of the other,

cigarette factories also make purchases through their own purchasing organisation which operate in the cigarette tobacco producing areas. Some of the cigarette factories also send their buying representatives to the producing area during the marketing season for making purchases. Similar are the practices adopted by at least half a dozen leading *bidi* manufacturers in the Central Provinces and Calcutta. Almost all these leading *bidi* manufacturers are *Gujeratis* from the *Charotar* area. They have extensive purchasing organisation in the producing areas, *bidi* tobacco processing factories and big workshops for manufacturing *bidis* either in Gujarat or in the Central Provinces or in Calcutta. The other *bidi* manufacturers make their purchases through commission agents and wholesalers operating in the producing areas.

The cigar and cheroot manufacturers generally do not have their own purchasing organisation. Occasionally, however, they appoint representatives who go in the producing area and make purchases on their behalf during the marketing season. Bulk of the cigar and cheroot manufacturers, however, make purchases on the basis of samples supplied by their respective commission agents and wholesalers in the producing areas. The manufacturers of *hookah*, chewing and snuff tobaccos make purchases mostly through or from commission agents and wholesalers.

(4) CO-OPERATIVE SOCIETIES.

As has already been explained in the chapter on "Assembling", the quantity of unmanufactured tobacco distributed through or by co-operative societies is almost negligible.

(5) EXPORTERS.

As discussed in the chapter on "Supply" over 96 per cent. of the average annual exports of tobacco and tobacco products consist of unmanufactured tobacco. Over four-fifths of the average annual exports of unmanufactured tobacco occur through the ports of Madras and Bombay Presidencies, and as such all the leading exporters operate in these two areas. The principal destinations where unmanufactured tobacco is exported are United Kingdom, Aden and Dependencies and Japan which together account for over three-fourths of the annual average exports.

(a) *Exports to the United Kingdom*.—Almost the whole of the unmanufactured tobacco exported to the United Kingdom is from the *Guntur* area of the Madras Presidency. All the exporters including the Indian Leaf Tobacco Development Company, who operate in this area, make their purchases direct from the growers and curers. So far as the Indian Leaf Tobacco Development Company are concerned, distribution of tobacco is a simple matter, as they supply the raw material only to their own manufacturers in India and England. Most of the other exporters ship their tobacco packages to their agents in England on consignment basis. Some of these agents are often mere shipping agents and not dealers in L1ICAR

tobacco. As such, they are not well conversant with the market requirements, but usually are more eager for the settlement of their bills. Other agents are professional brokers and leaf merchants.

Immediately on arrival in England, each tobacco package is sampled by the dock authorities, the weight of the sample taken being 4 lb. All tobacco packages are held in bonded warehouses until sold by the leaf-merchants or brokers. The buyer, i.e., the manufacturer then becomes responsible to His Majesty's Customs for the appropriate duty. On payment of this duty by the manufacturer, a permit is granted by His Majesty's Customs without which no tobacco is allowed to be stored in the manufacturer's premises. The terms and conditions under which tobacco packages can be taken away from the bonded warehouses are laid down by His Majesty's Customs. Manufacturers who buy tobacco are responsible for its transport from the warehouse to the factory.

Charges at the bonded warehouse vary slightly at the different ports and comprise of those for receiving tobacco, sampling and storage for 12 months from the date of import. Such charges are defrayed by the Indian exporter, except in the case of an order from a manufacturer on a *c. i. f.* basis.

The usual rate of commission charged by the leaf broker when selling tobacco on consignment basis is 5 per cent. calculated on the gross invoice value. Advances may be made against shipments, the security being shipping documents obtained at the time of export from India.

It may be stated that the tobacco leaf exported to the United Kingdom on consignment basis is invariably purchased by manufacturers outside the combine of the Imperial Tobacco Company (of Great Britain and Ireland), Limited. These manufacturers usually do not import direct, but look to leaf brokers and merchants in England for their supplies of the various grades and types irrespective of the origin. By this means they see from samples submitted from bond what they are going to get. They are not called on to make advances and are not bothered with any disputes and arbitrations.

As mentioned above, the charges for storing tobacco packages in the bonded warehouses appear to be the same for one day as for one year. There is therefore a possibility of a leaf broker in the United Kingdom of raising a loan against the stocks lying in the bonded warehouses, though no definite evidence is forthcoming on the point. Some of the Indian exporters from Guntur admit that they receive from their agents in England advances up to about 75 per cent. of the value of their exports at 6 per cent. interest but allege that the English agents in their turn raise money against the tobacco stocks at a lower rates of interest. They further complain that in the absence of any control over sales of tobacco in the English markets, as all sales are done by private treaty, they have to depend entirely on what their London agents write to them and that they have no other source to know whether their consignments have already been sold or are still lying in the bonded warehouses.

It is however a fact that apart from the correspondence they have with their English agents, the Guntur exporters have no way of knowing the ruling prices of Indian tobaccos in the London and Liverpool markets, and in consequence, they have to accept whatever the agents offer them. It may, however, be stated that the exporters from Guntur send with each consignment, their minimum valuation report to their agents in England and that the English agents never sell the goods without their consent if the prices offered are lower than those specified in the valuation report. There appears to be, however, a common feeling in the mind of the Indian exporters that situated as he is in the best position to know the trend of prices, the English agent might sell when the prices are at their maximum and might give something less to the Guntur exporters. The price quotations for Indian tobaccos in the English markets are never published nor do the agents in England supply the Guntur exporters counterfoils of the receipts passed by them to buyers (*i.e.*, manufacturers or their agents) in the United Kingdom. In consequence, the Indian exporters feel that they have to accept whatever they receive from their agents in the absence of any other sources to verify the prices actually realised for their consignments.

On the other hand, there seems to be a feeling among the leaf brokers in England that the average Indian shipper is quite unable to determine what price he is prepared to accept for each shipment sent over for sale on consignment basis and point out cases where the original asking price was reduced by as much as 3d. per lb. to the apparent satisfaction of the shipper. It is obvious that such practices must leave an unfavourable impression on the mind of the buyer but at the same time the Indian shipper cannot be blamed for lowering or raising the prices in accordance with the market conditions, about which he seems to be almost wholly ignorant so far as the sale of Indian tobacco in the United Kingdom market is concerned.

Almost the only cause of this trouble seems to be the absence of any market intelligence with regard to prices of Indian tobaccos. Apart from the efforts that are being made since 1937 by the Central Marketing Staff, there are no standardised grades for Indian tobacco exported to the United Kingdom. The grades adopted by the Indian exporters not only vary from one shipper to another but also from month to month with the same shipper. Under the conditions it is impracticable, if not impossible, to secure and publish information on prices of Indian tobaccos in the United Kingdom markets. In any case, the remedy to get out of the difficulties experienced by the Indian shippers lies in their own hands, and that is, that every shipper should export his leaf only on the basis of standard grades, to which a reference has already been given earlier. If large quantities of Indian leaf graded according to standards are offered for sale in the United Kingdom markets, it should be quite an easy matter to get and publish price quotations for Indian tobaccos in the same way as is being done with regard to American, Canadian, Rhodesian and Nyasaland tobaccos.

(b) *Exports to Japan.*—For shipments to Japan no brokers intervene, but the trade is extremely uncertain, at least so far as

individual exporters are concerned. Orders for purchase of tobacco from Japan are received only after the national budget for tobacco is passed in that country by about the end of September every year, so that the exports can be made only after September. The Country (*Natu*) cigarette tobacco exported from India to Japan becomes ready for the market in April and May so that the exporters from Guntur have to purchase leaf from the growers during these months in the hope of getting orders from Japan in September and October. These orders may or may not be repeated from year to year to the same Indian exporter, who therefore considers his business with Japan as a matter of chance. On account of this cause, exporters from Guntur sometimes have large unsold surplus stock which they very often export to the United Kingdom as heavy dark tobacco. This type of tobacco, *viz.*, Country (*Natu*) has an extremely limited market in England, with the result that the stocks of Indian tobaccos unnecessarily accumulate in the English markets.

(c) *Exports to Aden and Dependencies.*—These exports consist entirely of *bidi* and smoking tobaccos from the Bombay Presidency. Almost all the tobacco exported is from the Charotar area of Bombay Gujarat and Baroda State. Small quantities of *pendis* (leaf bundles) from the Nipani area are also exported. It is understood that there are over three dozen *Gujrati* merchants in Aden who are engaged in tobacco business and who arrange for the import of tobacco to Aden on consignment basis. Further distribution of this tobacco to Arabia and other adjoining parts is arranged by these merchants. In the majority of cases, these *Gujrati* merchants have their own organisations for purchasing tobacco in the *Charotar* area.

B.—Finance of wholesale distribution.

There is practically no difference between the method of finance of assembling and of wholesale distribution. Banks and *shroffs* do not play any significant part in financing the distribution of tobacco. Some of the smaller cigarette factories occasionally raise loans from joint stock banks against factory buildings and machinery which are usually insured. Most of the manufacturers, however, arrange their own finance. Commission agents, wholesale merchants and exporters operate almost entirely with their own money. Occasionally, they raise loans from banks and *shroffs* against property, gold and jewellery but almost never against tobacco stocks. In the case of wholesale merchants, a large part of their tobacco is offered to their clients on credit, the period of which may range from 30 to 60 days or more in accordance with their mutual business relations. Bulk of the manufacturers of *hookah* and chewing tobaccos and *bidis* do not come forward to buy tobacco from wholesalers unless they are given sufficiently elastic credit facilities.

As has already been noted earlier, some of the Guntur exporters get advances from their agents in England against their tobacco consignments at about 6 per cent. interest. Exporters who do business with Japan and Aden do not appear to get any advance, though it is understood that some of the *Gujrati* merchants doing business in

Aden supply capital to their agents in Bombay for making purchases in the *Charotar* area.

Bulk of the unmanufactured tobacco obtained from the United States of America and the United Kingdom is imported on behalf of the Imperial Tobacco Co. of India, Limited. The large trade in chewing tobacco imported into Travancore from Jaffna in Ceylon is maintained almost entirely through a system of finance which connects the grower on the one hand and a distributor in Travancore on the other. The tobacco grower in Jaffna is understood to be invariably financed by the local merchant or *chetty* (moneylender). Often, the tobacco is first pledged by the cultivator to the local merchant who in turn pledges it to the *chetty* who charges 18 to 24 per cent. interest on the money advanced. The *chetty* stocks the tobacco in his godown and often makes it a condition that it should be shipped to Travancore only in vessels chartered by him. Soon after the consignment of tobacco is received and sold in Travancore, the commission agent from Travancore makes an advance payment to the *chetty* up to the extent of 75 to 90 per cent. of the sale price. This advance may amount to as much as Rs. 50,000 in the case of an average commission agent. To meet this demand, he is often forced to borrow from the local banks which usually advance loans on personal security charging interest at 12 per cent. per annum. At the end of 12 to 18 months when the commission agent has realised all the sale proceeds of the tobacco, the balance due to the *chetty* is paid after deducting commission, godown charges and other expenses incidental to selling.

C.—Costs of distribution—the price spread from consumer to producer.

(1) UNMANUFACTURED TOBACCO.

The principal items of distribution costs are the assembling charges and expenses over sorting, grading, handling, packing and transport. These charges vary in different areas and in accordance with the extent of the distance of transport and the channels through which the produce passes to the consumer. When the producers sell direct to manufacturers, as in the case of cigarette, cigar, cheroot and *bidi* tobaccos, the costs of distribution are small and consist entirely of the market charges customary in the locality, handling and carting charges from the place of purchase to the buyer's godowns, and other expenses incurred by the manufacturer incidental to getting the unmanufactured tobacco ready for manufacture. In the case of other manufacturers who buy from wholesalers and stockists, the distribution costs include handling, storage and other charges incurred by the latter. In such cases the proportion of the consumer's price that goes to the grower is naturally smaller than when the grower sells his produce direct to the manufacturer. When the unmanufactured tobacco is exported abroad the grower's share of the consumer's price is still smaller.

The following figures show the average distribution costs in the case of flue-cured Virginia leaf (stripped) exported from Guntur to the United Kingdom, as worked out from data secured from a number of merchants and growers.

Price-spread of flue-cured Virginia leaf (stripped) exported from Guntur to the United Kingdom.

(Per bale of 250 lb.)

	Export by merchant.		Export by grower.	
	Amount.	Per cent.	Amount.	Per cent.
	Rs. A. P.		Rs. A. P.	
Amount realised by grower ..	52 3 6	42.3	34 12 0	40.0
Market charges paid by grower ..	1 14 6	1.6	..	..
Carting expenses	0 4 0	0.2	..	..
Brokerage in Guntur	0 10 5	0.5	3 0 0	3.4
Grading expenses	2 5 2	1.8	3 0 0	3.4
Stripping expenses	2 8 0	2.0	2 0 0	2.3
Loss in weight by stripping ..	11 14 8	9.7	10 0 0	11.5
Loss in weight by moisture, break-age, etc.	5 15 7	4.9	..	..
Pressing charges	0 4 0	0.2	3 0 0	3.4
Package and packing	1 10 5	1.3		
Transport to port (Coconada) ..	0 10 0 (by canal)..	0.5	1 10 0 (by road and rail).	1.9
Forwarding agent's charges ..	0 6 7	0.3	0 6 0	0.4
Insurance	0 11 11	0.6	..	..
Steamer freight	6 6 10	5.2	6 4 0	7.2
Cable charges	0 3 0	0.2	..	..
Landing, rent, interest and other contingent charges at destination.	10 6 9	8.5	17 0 0	19.5
Brokerage in United Kingdom ..	5 3 0	4.2	4 5 0	5.0
Tare .. ..	..	..	1 11 0	2.0
Merchant's (Exporter's) margin ..	19 10 8	16.0	..	..
Price realised in United Kingdom	123 5 0	100.0	87 0 0	100.00

Thus, when the flue-cured leaf is exported by a Guntur exporter, the grower for his leaf, on an average gets 42.3 per cent. of the price

realised in the United Kingdom markets for the stripped leaf, while the exporter makes a margin of 16 per cent. which include his overhead expenses estimated at about Rs. 5 per bale of 250 lb. The balance, viz., 41.7 per cent. represents loss in moisture, stripping, charges on grading, packing, transport, insurance, landing expenses, rent, brokerage, etc. When the grower himself exports, he gets, for his stripped leaf, as his net return only about 40 per cent. of the price realised in England, the balance representing expenses on items specified above. Tobacco intended for export to England requires special skill and equipment in preparation, redrying, grading and packing and small growers can ill afford to have such facilities. Exports made by growers themselves, therefore, compare unfavourably in quality with those made by professional and expert exporters and hence the tobacco leaf exported by growers generally fetches a lower price in the English market.

On the country (*Natu*) tobacco exported to the United Kingdom and Japan, the grower's share of the consumer's price is smaller, as can be seen from the following figures.

*Price-spread of country (*Natu*) exported by merchants from Guntur to the United Kingdom and Japan.*

(Per bale of 250 lb.)

	Export to U. K.		Export to Japan.	
	Amount.	Per cent.	Amount.	Per cent.
	Rs. A. P.		Rs. A. P.	
Amount realised by grower ..	26 1 0	31.4	18 14 8	37.8
Market charges paid by grower ..	1 5 0	1.6	0 15 4	2.0
Carting expenses	0 4 0	0.3	0 4 0	0.5
Brokerage in Guntur	0 8 0	0.6	0 8 0	1.0
Grading expenses	2 8 0	3.0	2 0 0	4.0
Stripping expenses for removal of stalks and stems.	2 0 0	2.4	2 0 0	4.0
Loss in weight by removal of stems and stalks.	2 12 0	3.3	2 0 0	4.0
Loss in weight by moisture, etc. ..	2 12 0	3.3	2 0 0	4.0
Pressing charges	0 4 0	0.3	0 4 0	0.5
Package and packing charges ..	0 12 0	0.9	0 12 0	1.5
Transport to port (<i>Coconada</i>) by canal.	0 10 0	0.7	0 10 0	1.2

	Export to U. K.		Export to Japan.	
	Amount.	Per cent.	Amount.	Per cent.
Forwarding agent's charges ..	Rs. A. P. 0 6 0	0·4	Rs. A. P. ..	..
Insurance	0 8 0	0·6	..	..
Steamer freight	6 4 0	7·5	3 0 0	6·0
Cable charges	0 3 0	0·2	0 3 0	0·4
Landing, rent, interest and other contingent charges at destination.	10 3 0	12·2	..	..
Brokerage at destination ..	4 2 0	4·9	..	..
Exporter's margin	22 0 0	26·4	16 9 0	33·1
Price realised at destination ..	83 6 0	100·0	50 0 0	100·0

It is, therefore, evident that of the price realised for country (*Natu*) tobacco in the United Kingdom, the grower gets 31.4 per cent., while the exporter makes a margin of 26·4 per cent. The corresponding figures for exports to Japan are 37·8 per cent. as the grower's share and 33·1 per cent. as the margin made by the exporter from the price realised in Japan. The overhead expenses of the exporter are estimated at about Rs. 5 per bale which he meets from the margin he makes.

The following figures show the per maund details of a consignment of 67½ maunds of smoking and *bidi* tobacco exported by a merchant from Petlad (Baroda) to Aden :—

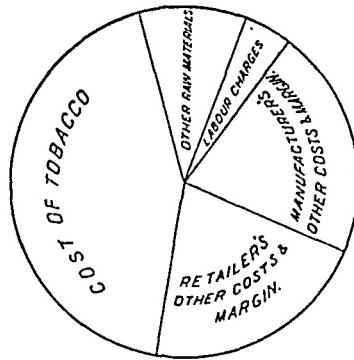
Price-spread of bidi tobacco exported from Petlad (Baroda) to Aden.

(Per standard maund).

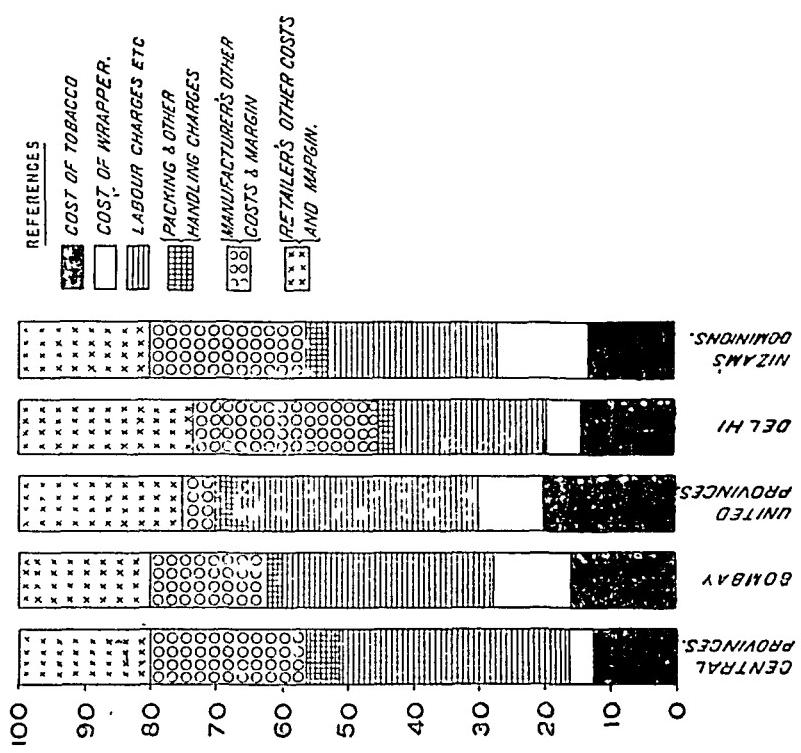
			Rs. A. P.	Per cent.
Amount realised by the grower ..	..	..	7 11 0	59·4
Market charges paid by the grower ..	..	..	1 5 0	10·1
Market charges paid by the buyer ..	..	..	0 3 1	1·5
Package and packing expenses ..	..	..	0 6 8	3·2
Road transport to Petlad Railway station ..	..	..	0 1 0	0·5
Railway freight to Bombay .. ..	..	..	1 4 0	9·7
Taking delivery, transporting to and arranging in the warehouse.			0 2 7	1·2
Tightening the ropes of the bales, etc. ..	..	..	0 1 4	0·6
Warehouse rent, insurance, etc. ..	..	..	0 1 5	0·7
Transport from the warehouse to the port ..	..	..	0 2 0	1·0
Port-trust charges in Bombay ..	..	..	0 4 9	2·3
Steamer freight to Aden .. ..	..	..	0 15 3	7·4
Marine insurance charges ..	..	..	0 1 0	0·5
Miscellaneous charges incidental to handling and transport to merchant's warehouse at Aden.			0 4 0	1·9
Total ..	12 15 1		100·0	

PRICE SPREAD OF HOOKAH TOBACCO MANUFACTURED & SOLD IN DELHI.

INFERIOR QUALITY



TYPICAL INSTANCES OF PRICE SPREADS OF BIDIS IN A FEW IMPORTANT PROVINCES.

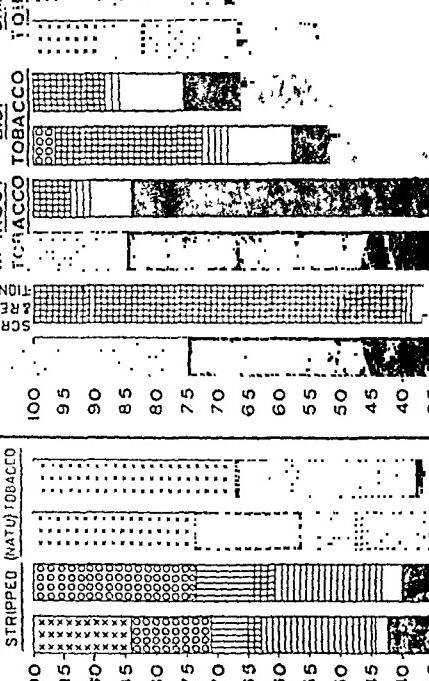


TYPICAL INSTANCES OF PRICE SPREADS OF UNMANUFACTURED TOBACCO

FOREIGN MARKETS

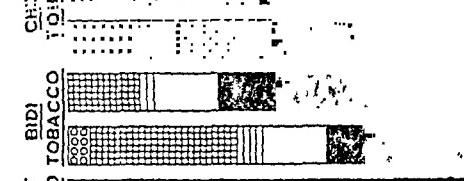
CIGARETTE TOBACCO

FLUE-CURE
VIRGINIA LEAF
STRIPPED (NAT) TOBACCO

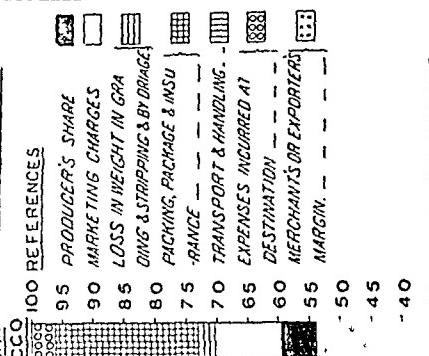


INLAND MARKETS

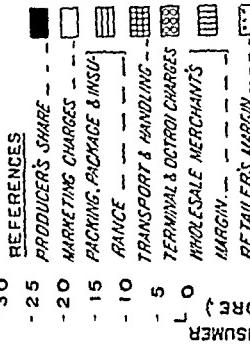
CHewing TOBACCO



HOOKAH TOBACCO



INLAND MARKETS



MANUFACTURER-DELI CONSUMER (LAHORE)



CONSUMER-MERCHANT (BOGRA)



The tobacco was purchased on behalf of a *Gujrati* merchant from Aden and the price at which the Aden merchant sold the tobacco is not known. But taking into consideration the expenses incurred by the merchant incidental to storage, etc., before sale, it is understood that on an average the grower hardly gets more than 50 per cent. of the price realised for his tobacco at Aden.

So far as the internal distribution of unmanufactured tobacco is concerned, the spread of price between the consumer and producer in different areas is summarised in Appendix LXVI and illustrated in the diagram facing this page. The main factors that determine the proportion of the consumer's price that goes to the producers are the market value of the type of tobacco, the distance over which the produce is transported and the number of times the commodity changes hands before it reaches the consumer or manufacturer. Thus, while on country (*Natu*) cigarette tobacco sold to a Sukkur manufacturer, the Guntur producer gets almost 75 per cent. of the consumer's price, he gets hardly 37 per cent. of the price paid by a Lahore manufacturer on the cheap scraps and rejections of cigarette tobacco. With the same type and quality of tobacco, the largest single variable factor in the distribution costs is the railway freight, which depends not only on the distance over which the commodity travels but also on the specially reduced freight rate that may exist between any two points. In the case of Bangalore, however, the octroi and terminal charges account for almost 40 per cent. of the price paid by a consumer of chewing tobacco as against a little over 26 per cent. obtained by the producer (see Appendix LXVI). Similar is the case in a few other towns like Bombay where the rates of terminal and octroi charges (discussed in the next chapter) are high. In Bombay Rs. 30 are charged for every maund of tobacco that enters the town of Bombay. Thus, while the Charotar grower gets only Rs. 10 to Rs. 13 for a maund of his *bidi* tobacco, Rs. 30 have to be paid as town duty immediately the same maund of tobacco enters Bombay City.

It may be seen from the figures of a few typical cases given in Appendix LXVI that the producer's share of the consumer's price ranges from 26.5 to 84.3 per cent. leaving the case of Burma out of consideration. It is, however, assumed in all these cases that the producer sells direct to consumers. The quantity of tobacco sold by producers in regular markets is estimated at not more than 10 per cent. of the total production in India and it has also been made clear earlier (see Chapter V—Assembling) that about four-fifths of the crop is disposed of in villages. In village sales, the village merchants and local warehousemen intervene and in such cases the share of the consumer's price received by the producer would be lower than that shown in the representative instances given in Appendix LXVI. After making an allowance for this factor, it may be very roughly reckoned that on an average the grower's share of the price paid by the consumer cannot be much more than about 60 per cent.

The one case given for Burma in the Appendix LXVI shows that the producer's share of the consumer's price is 85 per cent. This, however, takes no account of the complicated financial arrangements entered into by most of the tobacco growers in Burma with the local

moneylenders, brokers, merchants and manufacturers (see Chapter V—Assembling). Taking into account the heavy rates of interest charged for the advances taken by the grower and the restriction of his freedom in the matter of the disposal of the crop, as a condition of the loan, the share of the consumer's price that goes to the Burmese tobacco producer is also roughly estimated at not more than 60 per cent.

(2) TOBACCO PRODUCTS.

As explained in the next chapter, excepting in the case of cigarette factories and one or two cigar manufacturers, the manufacture of tobacco products is not a standardised occupation for which factory costings are usually kept, nor one about which information is given at all freely. The complicated nature of manufacture, particularly of cigarettes, discussed in the next chapter, would make any estimate of manufacturing and distributing costs highly conjectural. It is, therefore, advisable to restrict discussion in this section only to such tobacco products, like *bidis*, *hookah* and chewing tobaccos and snuff, where the process of manufacture is much simpler and for which fairly accurate and representative estimates can be made with the help of information secured from manufacturers.

(a) *Bidis*.—The following figures show the manufacturing and distribution costs per 10,000 *bidis* of medium size manufactured at Delhi :—

<i>Manufacturer</i>	Total cost. Rs. A. P.	Per cent.
(1) <i>Raw materials</i> —		
(a) Tobacco 5 seers made up of—		
3 seers of Delhi grown tobacco at Rs. 4 per maund of 45 seers. (These 3 seers give approximately $2\frac{1}{2}$ seers of <i>bidi</i> tobacco after powdering and sieving and removing earth and dirt) Cost Re. 0.4-3.		
$2\frac{1}{2}$ seers of Gujarat tobacco at Rs. 20 per maund of 45 seers. Cost Rs. 1.1-9. Powdering and sieving cost Re. 0.0-7. Total cost of tobacco	1 6 7	7.5
(b) <i>Other raw materials</i> —		
Wrapper leaf 10 seers at Rs. 4 per maund. Cost Re. 1.0-0.		
Thread Re. 0.5-0.		
Paper and packing Re. 0.2-0.		
Total cost of other raw material	1 7 0	7.7
(2) <i>Labour charges</i> at 7 annas per 1,000 <i>bidis</i> (piece work) ..	4 6 0	23.3
(3) <i>Manufacturer's other costs and margin</i>	5 4 5	28.2
(4) <i>Selling price</i> at Rs. 1.4-0 per 1,000 <i>bidis</i>	12 8 0	
<i>Retailer</i> —		
(5) <i>Retailer's margin</i>	6 4 0	33.3
(6) <i>Retailer's price</i> at 9 pies per 25 <i>bidis</i> charged to consumers.	18 12 0	100.0

Similar enquiries indicate the following as the manufacturing and distributing costs in important areas.

Average manufacturing and distributing costs of bidis.

(Per 1,000 bidis.)

(Figures in brackets represent percentages.)

	Central Provinces.	Bombay.	U. P.	Delhi.	Nizam's Dominions.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Cost of tobacco	0 2 6 (12·5)	0 4 0 (16·0)	0 4 0 (20·0)	0 4 3 (14·2)	0 2 7 (13·0)
Cost of wrapper	0 0 9 (3·8)	0 3 0 (12·0)	0 2 0 (10·0)	0 1 7 (5·3)	0 2 10 (14·2)
Labour charges, etc.	0 7 0 (35·0)	0 8 0 (32·0)	0 7 0 (35·0)	0 7 0 (23·3)	0 5 2 (25·8)
Packing and other handling charges	0 0 11 (4·7)	0 0 6 (2·0)	0 1 0 (5·0)	0 0 8 (2·2)	0 0 8 (3·3)
Manufacturer's other costs and margin	0 4 10 (24·0)	0 4 6 (18·0)	0 1 0 (5·0)	0 8 6 (28·3)	0 4 9 (23·7)
Retailer's other costs and margin	0 4 0 (20·0)	0 5 0 (20·0)	0 5 0 (25·0)	0 8 0 (26·7)	0 4 0 (20·0)
Consumer's price	1 4 0 (100·0)	1 9 0 (100·0)	1 4 0 (100·0)	1 14 0 (100·0)	1 4 0 (100·0)

Thus it is seen from the above statement and the diagram facing page 310 that the manufacturer makes a margin of 5 to 28·3 per cent. of the consumer's price, while the retailer gets from 20 to 26·7 per cent. The cost of tobacco ranges from 12·5 to 20 per cent., of wrapper leaf from 3·8 to 14·2 per cent., of labour 23·3 to 35 per cent., while the cost of thread, labelling, packing, etc., varies from 2 to 5 per cent. of the consumer's price. The cost of labour forms the biggest single item.

(b) *Hookah tobacco*.—Enquiries made in Delhi show the following as the average costs of manufacturing and distributing superior and inferior qualities of hookah tobacco. (See diagram facing page 310.)

Details of manufacturing and distributing costs of superior quality hookah tobacco manufactured in Delhi.

Details.	Total cost. Rs. A. P.	Per cent.
<i>Manufacturer—</i>		
(1) <i>Raw materials—</i>		
<i>Tobacco—</i>		
1 maund (45 seers). Farrukhabad tobacco at Rs. 10 per maund. Cost Rs. 10-0-0.		
2 seers of Kampilla tobacco at Rs. 15 per maund of 45 seers. Cost Re. 0-10-8.		
15 seers of Bombay tobacco dust at Rs. 6 per maund of 45 seers. Cost Rs. 2-0-0.		
Powdering and sieving at 6 annas per maund (45 seers.) Cost Re. 0-8-3.		
Total cost of tobacco	13 2 11	31·5
<i>Other raw materials—</i>		
Molasses 1½ maunds at Rs. 1-12-0 per maund. <i>Earth*</i> Re. 0-0-7.		
Total cost of other raw materials	2 10 7	6·3
(2) <i>Labour charges</i> at 6 annas per maund of 45 seers (piece work)		
..	1 6 0	3·2
(3) <i>Manufacturer's other costs and margin</i>		
..	7 14 6	19·0
(4) <i>Selling price</i> of 134† seers of hookah tobacco at Rs. 7-8-0 per maund		
	25 2 0	
<i>Retailer—</i>		
(5) Retailer's margin	16 12 0	40·0
(6) Retailer's price at 5 annas per seer	41 14 0	100·0
<i>Details of manufacturing and distributing costs of inferior quality hookah tobacco manufactured in Delhi.</i>		
Details.	Total cost. Rs. A. P.	Per cent.
<i>Manufacturer—</i>		
(1) <i>Raw materials—</i>		
<i>Tobacco—</i>		
1 maund of 45 seers of imported raw hookah tobacco at Rs. 10 per maund. Cost Rs. 10-0-0.		
15 seers of Delhi grown tobacco at Rs. 5 per maund of 45 seers. Cost Rs. 1-10-8.		
15 seers of Bombay tobacco dust at Rs. 6 per maund of 45 seers. Cost Rs. 2.		
Powdering and sieving at Re. 0-6-0 per maund of 45 seers. Cost Re. 0-10-0.		
Total cost of tobacco	14 4 8	43·5
<i>Other raw materials—</i>		
75 seers of molasses at Rs. 1-12-0 per maund. Cost Rs. 3-4-6.		
<i>Earth†</i> Re. 0-1-3.		
Total cost of other raw materials	3 5 9	10·2
(2) <i>Labour charges</i> at 6 annas per maund of 45 seers (piece work)		
..	1 7 4	4·4
(3) <i>Manufacturer's other costs and margin</i>		
..	4 15 3	15·2
(4) <i>Selling price</i> of 175§ seers at Rs. 5-8-0 per maund		
	24 1 0	

* The total quantity of tobacco used comes to 62 seers. To this is usually added about 20 per cent. of earth. Thus about 12 seers of earth is added. This costs about 2 annas per maund for labour.

† The total quantity of hookah tobacco comes to 134 seers made up of 62 seers of tobacco, 12 seers of earth and 60 seers of molasses.

‡ Earth equal to about one-third of the weight of tobacco is added.

§ Consisting 75 seers of tobacco, 75 seers of molasses and 25 seers of earth.

Details of manufacturing and distributing costs of inferior quality hookah tobacco manufactured in Delhi—contd.

Details.	Total cost.	Per cent.
	Rs. A. P.	
<i>Retailer—</i>		
(5) Retailer's margin	8 12 0	26.7
(6) Retailer's price at 3 annas per seer	32 13 0	100.0

The average manufacturing and distributing costs in the important hookah smoking areas are given in the following statement :—

Average manufacturing and distributing costs of hookah tobacco.

(Per maund of manufactured hookah tobacco.)

(Figures in brackets represent percentages.)

—	Punjab. Rs. A. P.	Delhi. Rs. A. P.	U. P. Rs. A. P.	Bengal. Rs. A. P.
Cost of tobacco	2 10 7 (53.2)	3 9 8 (36.0)	3 4 2 (37.5)	3 12 0 (37.5)
Other raw materials and ingredients	0 11 3 (14.1)	0 12 6 (7.8)	2 5 5 (26.9)	1 12 0 (17.5)
Labour charges, etc.	0 3 1 (3.8)	0 6 0 (3.8)	0 2 7 (1.8)	1 0 0 (10.0)
Manufacturer's other costs and margin.	1 7 1 (28.9)	1 15 6 (19.7)	1 3 2 (13.8)	1 8 0 (15.0)
Retailer's other costs and margin.		3 4 4 (32.7)	1 11 10 (20.0)	2 0 0 (20.0)
Consumer's price ..	5 0 0 (100.0)	10 0 0 (100.0)	8 11 2 (100.0)	10 0 0 (100.0)

The cost of tobacco thus ranges from 36 to 53.2 per cent. of the consumer's price, while that of other raw materials like molasses, etc., varies from 7.8 to 26.9 per cent. Labour charges form the smallest item of cost accounting from 1.8 to 10 per cent. of the consumer's price, while margin made by the manufacturer varies between 13.8 to 19.7 per cent. In the Punjab, the manufacturer who himself does the retailing makes a margin of 28.9 per cent. of the consumer's price. The margin made by the retailer in Delhi, the United Provinces and Bengal is higher than that obtained by the manufacturer and ranges from 20 to 32.7 per cent.

(c) *Chewing tobacco*.—The figures given below indicate the average manufacturing and distribution costs of *zarda* chewing tobacco manufactured in the United Provinces.

				Per maund of manufac- tured chewing tobacco.	Per cent.
				Rs. A. P.	
Cost of tobacco	..	..	..	18 0 0	36·0
Cost of other raw materials and ingredients		..	..	2 10 0	5·3
Labour charges, etc.	..	..	..	1 8 0	3·0
Packing and handling charges	..	..	..	2 4 0	4·5
Manufacturer's other costs and margin	..	..	..	13 2 0	26·2
Retailer's other costs and margin	..	..	..	12 8 0	25·0
<hr/>					
Consumer's price		..	..	50 0 0	100·0

(d) *Snuff*.—A snuff manufacturer from Kolhapur has given the following figures of costs and realisations :—

				Per seer of snuff.	Per cent.
				Rs. A. P.	
Cost of tobacco	..	..	..	0 8 5	21·1
Cost of other raw materials and labour	..	..	..	0 3 2	7·9
Manufacturer's other costs and margin	..	..	..	1 1 3	43·1
Retailer's other costs and margin	..	..	..	0 11 2	27·9
<hr/>					
Consumer's price		..	..	2 8 0	100·0

[*Wholesale distribution of unmanufactured tobacco*

INTER-CHAPTER NINE.

It is difficult to make a general statement applicable to the whole country about the proportion of the consumer's price obtained by the producer of the different types of tobacco. About four-fifths of the tobacco crop is sold by the producers in their own villages to merchants, manufacturers and warehousemen. In such sales the distribution costs consist entirely of the market charges customary in the locality and the producer gets 99 per cent. of the buyer's price in the North Bihar area, 94 to 96.5 per cent. in the North Bengal and Guntur areas and 85.5 per cent. in the *Charotar* area. When sold in markets in the producing areas, the producer gets 89.5 per cent. of the buyer's price in the Nipani area and 94.5 to 96.5 per cent. in the North Bihar and Guntur areas. The bulk of these sales are, however, made to merchants and warehousemen who form a fairly long chain between the producers and consumers or manufacturers and the share of the consumer's price received by the producer becomes much lower. After making allowance for this factor and transport and other charges, it may be roughly estimated that, on the average, the producer's share of the price paid for unmanufactured tobacco by the consumer or manufacturer is not much more than 60 per cent. or 10 annas in the rupee.

On an average, of the prices realised for Virginia flue-cured tobacco (stripped) in the United Kingdom markets, the grower from Guntur gets about 42.3 per cent. for his leaf, while the exporter's margin amounts to 16 per cent. The balance, *viz.*, 41.7 per cent., represents loss in moisture stripping, charges on grading, packing, transport, insurance, landing charges, rent, brokerage, marketing charges, etc. When the grower

himself exports, he gets for his stripped leaf as his net return only 40 per cent. of the price realised in England, the balance representing expenses on items specified above. Tobacco intended for export requires special skill and equipment in preparation, redrying, grading and packing. Small growers can ill-afford such facilities and would be well advised to desist from exporting their tobacco direct for sale on consignment basis at any price it will fetch. On the country (*Natu*) tobacco exported to the U. K., the grower gets 31.4 per cent. as his share of the price realised in England, while the exporting merchant's margin amounts to 26.4 per cent. The grower's share of the price realised in Japan for country (*Natu*) tobacco is about 37.8 per cent. as against the exporter's margin of 33.1 per cent. The Indian grower gets hardly 50 per cent. of the price realised in Aden for his tobacco.

One important reason for the high distribution costs is the frequent sorting and resorting of the unmanufactured tobacco almost at every stage to suit the requirements of different merchants and manufacturers. It should be possible to economise in this respect by adopting standards in regard to quality, moisture contents and packing. The marketing expenses are high particularly in the *Charotar* and *Nipani* areas and some action is urgently required for their regulation.

Commission agents and wholesalers form the most important link in the chain of distribution, and assemble and distribute about four-fifths of the total annual production. Purchases are also made directly from villages by agents of the big manufacturers and of most of the leading exporters who operate at Guntur and Bombay.

There is a feeling in the mind of some particularly of the smaller exporters that they do not get correct prices for their leaf from their agents in the United

Kingdom. This arises from the fact that they have no source with which they can compare the prices obtained from their agents. In the absence of standard grades, there is no market intelligence with regard to Indian tobaccos in United Kingdom markets, which would make it possible to compare prices. If large quantities of Indian leaf graded according to standards are offered for sale in the United Kingdom and other markets, it should be possible to secure and publish price quotations for Indian graded tobaccos in such a way that exporters could exercise better judgment as to the proper time and place to dispose of their consignments.

CHAPTER X.—MANUFACTURE AND DISTRIBUTION OF TOBACCO PRODUCTS.

Apart from the cigarette factories and one or two manufacturers of cigars, like the Spencer's, manufacture of tobacco is essentially a local industry. It is not a standardised occupation for which factory costings are usually kept, nor one about which information is given at all freely to an enquiry. Even in the case of cigarette and cigar factories, the only dependable information available is that collected under the Indian Factories Act and this consists of names and location of factories, persons employed, accidents, etc. Cigarette and cigar factories, in general, are not very willing to part with any information almost on any aspect of the industry and manufacturers of other tobacco products also are not quite willing to part with information of their trade. Any information given here, therefore, must be read with these remarks in mind.

A.—Manufacture of tobacco products.

(1) CIGARETTES.

(a) *Extent and location.*—During the year 1935, the latest year for which information is available, there were 22 cigarette factories registered under the Indian Factories Act, employing on an average 8,000 persons daily. Four of these factories belonged to the Cigarette Manufacturers (India), Ltd., and the Tobacco Manufacturers (India), Ltd., employing on an average about 4,600 persons daily, while the remaining 18 were other factories to employ about 3,400 persons per day. To indicate the development of cigarette manufacture in India, it may be stated that in 1923 there were only 11 factories employing on an average about 5,000 persons daily, while in 1929 there were 9 factories, employing on an average about 7,200 persons per day. In 1933, the number of factories increased to 24 with a daily labour force of 7,000.

The Indian Leaf Tobacco Development Company purchases over half of the cigarette leaf produced in India for export and for sale to the Tobacco Manufacturers (India), Limited, and the Cigarette Manufacturers (India), Limited, who own three factories and one factory respectively and are responsible for three-fourths of the output of cigarettes in India. The factories are located at Bangalore, Saharanpur, Monghyr and Calcutta.

The Imperial Tobacco Company of India, Ltd., acts as a selling organisation for handling the products of the companies referred to above and including imported goods probably handles somewhere like 75 per cent. of the total trade of cigarette in India.

The Indian factories are located in Bombay, Sukkur, Jullundur, Lahore, Allahabad, Calcutta, Hyderabad (Deccan) and Baroda. The more important Indian factories are those at Calcutta, Bombay, Sukkur and Hyderabad (Deccan), at

least so far as the volume of production is concerned. There are two small factories catering for local demand at Gwalior and Bezwada. A manufacturing concern from England is contemplating to organise a big cigarette factory at Bombay.

Between 22 to 23 million lb. of tobacco leaf is annually used by all the cigarette factories. Of this quantity about 15 per cent. is foreign leaf imported almost entirely from the United States and the United Kingdom. The annual production of cigarettes in India is estimated at about 7,500 million cigarettes valued at nearly six crores of rupees. Almost three-fourths of the production consist of cheaper brands of cigarettes. The production of medium quality cigarettes is estimated at about 20 per cent. while that of the high grade cigarettes at about 5 per cent. of the total annual production.

(b) *Manufacture*.—The manufacture of cigarettes is an extremely elaborate and complex affair. On arrival at the factory the tobacco leaf is removed from its containers and then further graded and blended. Each brand is made up of definite proportions of different grades or types of tobacco in order to produce a product of definite quality and to maintain a specified standard of quality. The several grades or types are carefully brought together or blended in proper proportions on the floor of the mixing room. Selection and blending of leaf is one of the most important operations in the manufacture of cigarettes and the blender is often the most important person in all cigarette factories.

A few manufacturers spray the tobacco leaf with "flavourings" which are made from very secret recipes, particularly in the case of cheaper brands of cigarettes. Various concoctions of glycerine, glucose, molasses and essential oils are used. In order to maintain the moisture in tobacco and to improve the flavour, many manufacturers use glycerine and di-ethylene glycol. It may be stated that in the United Kingdom the use of glycerine and di-ethylene glycol is considered illegal in the manufacture of tobacco products, though the use of essential oils for the purpose of flavouring of any tobacco products and olive oil and sweetening matter in the case of smoking tobaccos is permissible. The addition of solid matters is prohibited for home consumption but permissible in goods manufactured for export.

After the leaf is selected, the tobacco is taken to the steaming or re-conditioning room where it is passed through a series of chambers permeated with moisture which renders the leaf soft and pliable and fit for handling. Afterwards, the midrib of the leaf is removed, if this has not already been done, before the leaf reaches the factory. The stripped or stemmed leaf is then built into heaps and allowed to "case" or mature which is considered to sweeten and mellow the tobacco. At this point the leaf is considered ready for manufacture and taken to the cutting room where it is cut into fine shreds by the cutting machines. The cut tobacco is then passed through a machine consisting of large revolving cylinders which are heated.

This has the effect of loosening the cut tobacco and making it light and fluffy. Afterwards, it is passed into revolving drums, through which cold air is circulated, and over a series of sieves, where particles of dust or stem are extracted. The cut tobacco is then taken to the storage room where it cools and matures for about two days, after which it is considered ready for manufacture into cigarettes.

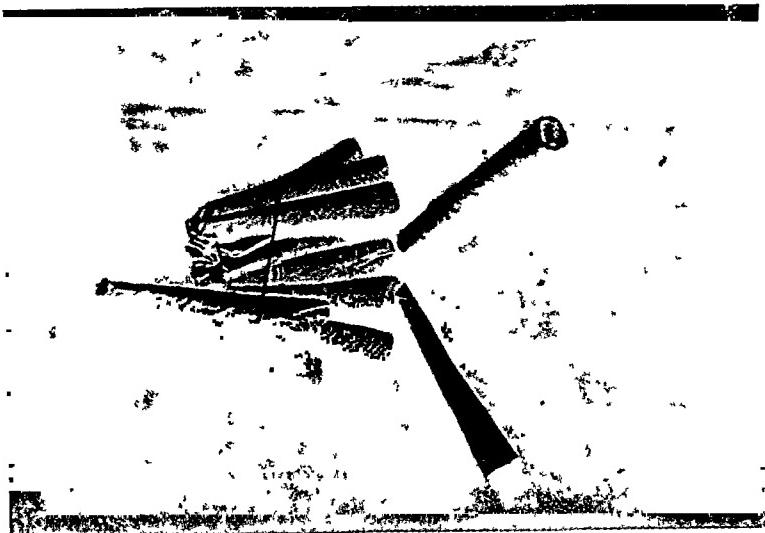
The cigarette making machine is a fast running machine and great care is necessary to ensure that all the cigarettes that are put through are well filled and that the cigarette paper is properly printed, as the printing is done by the same machine which makes the cigarettes. The making of cigarettes is a skilled work, and an operator has to receive a considerable amount of training before he is able to make satisfactory cigarettes, as there are several points that have to be watched.

The cut tobacco is fed into large hoppers at the back of the cigarette machine. From here it is drawn over a wide shute by fast revolving rollers. At the bottom of the shute, in a narrow trough, runs the cigarette paper in an endless stream. Before reaching the trough, the paper is printed, by a printing press attached to the machine, with the name of the brand on each cigarette length. In the case of cork-tipped cigarettes, the paper passes through a cork-tipping apparatus where the tips are securely fastened to the paper in the required position. The tobacco from the shute falls over the swiftly moving cigarette paper, one edge of which is mechanically pasted and then quickly folded over the tobacco. The pasted lap of the paper is then automatically sealed. The cigarette thus made is endless and a fast revolving circular knife cuts it to required lengths. The cigarettes are then examined and their weight tested.

Afterwards the cigarettes are put into trays and allowed to condition for a specified time in a special room. They are then packed in cartons of tens or in vacuum tins of 50 cigarettes. Most of the bigger cigarette factories possess packing machines which pack cigarettes in cartons, at the same time placing the tin foil around the cigarettes. The cartons then go to another machine which wraps them in glascine or moisture-proof and transparent paper which also enables the consumer to be sure that the cigarettes have not in any way been tampered with after they left the manufacturer.

(2) CIGARS.

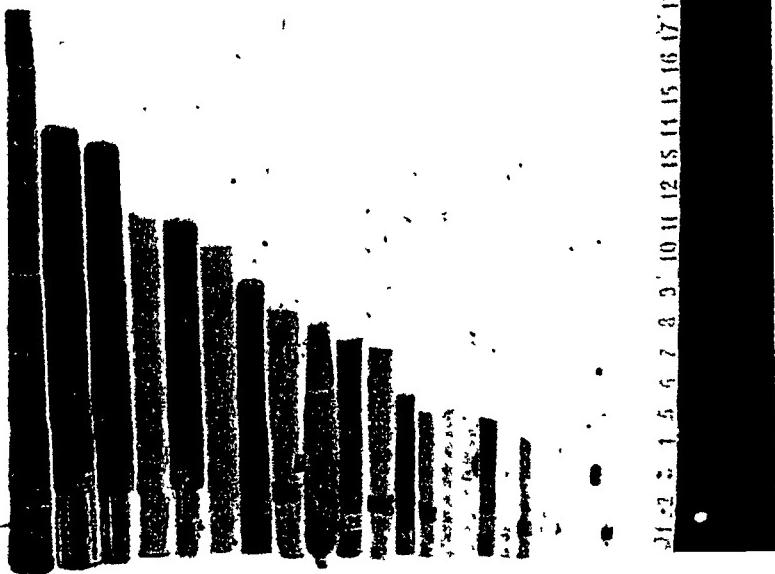
(a) *Extent and location.*—The cigar differs from the cheroot only in shape being truncated at both ends. As has already been indicated earlier in the first two chapters, the trade and hence the volume of manufacture of cigars is continuously on the decline. About half a million lb. of tobacco is used in the manufacture of cigars annually and the number of cigars manufactured at present is estimated at about 30 millions valued at about 15 lakhs of rupees per annum. Cigars are manufactured almost entirely in the Madras



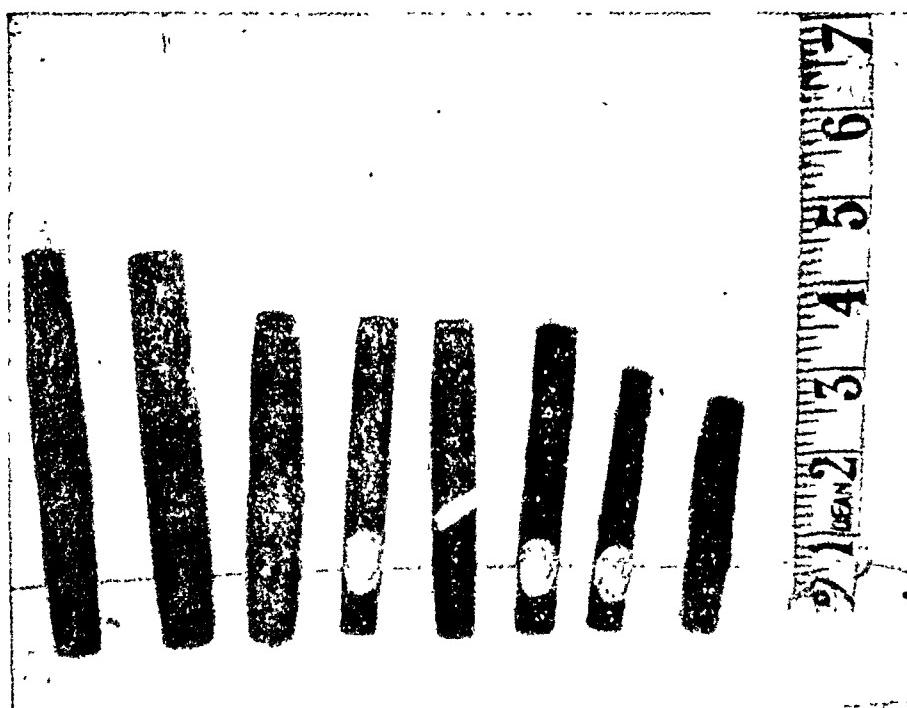
Bilis.



A *bidi* making workshop with the workers busy making *bidis*. The shop also retails *bidis* and other tobacco products, as well as matches, betel-nuts, etc.



An assortment of Burmese mild cheroots.



An assortment of Burmese strong cheroots.

Presidency where there are about a dozen and a half large factories. Trichinopoly is an important centre of production and has about a dozen factories. The well-known Spencer's cigars are manufactured at Dindigul, while in Madras city there is another factory where superior cigars, chiefly meant for export, are manufactured. Coconada has two factories, but their output is small. The largest cigar factory in the country is that of the Spencer's at Dindigul employing on an average a little over 250 persons per day. Other factories employ from 50 to 100 hands each per day, but work is stopped or reduced during the winter months. Besides the larger cigar manufacturing factories, some of the cheroot factories also manufacture cigars on a small scale.

(b) *Manufacture*.—As compared with the manufacture of cigarettes, the making of cigars as well as cheroots is much simpler and can be done without any elaborate machinery and all by hand. After the tobacco bundles are received in the factory, they are slightly moistened by spraying water on them to facilitate handling without breakage. The leaf is then sorted out into filler, wrapper and binder, which constitute the three parts of a cigar, as well as of a cheroot. The filler tobacco forms the central core of the cigar while the binder binds the filler and holds it into shape. The wrapper leaf is wrapped on the outside of the cigar and indicates the quality of the cigar, so far as the external appearance is concerned.

The filler leaf is then again moistened and stripped by taking off the midrib. The larger manufacturers do not recommend flavouring of tobacco, but some of the smaller factories use essential oils for flavouring. The stripped leaves are then dried and kept in store for use. They are then further sorted into longer leaves useful for wrappers and smaller ones for fillers. The fillers are used mainly of Trichinopoly origin and occasionally also from Guntur. The wrapper leaf which is usually imported from abroad, should be thin, soft, pliable and entirely devoid of bitter taste. The filler leaves are then rolled into small cylinders over which the binders are tied. The rough cigars thus rolled are afterwards kept in a press for some time until well set. Superior wrapper which is kept ready in a rolled form is then applied on in moist condition over the rough cigar, starting at the lighting end and finishing at the other end by fastening the edges of the wrapper with a paste. After this, they are packed in thin wooden cases to contain 25, 50 or 100 cigars. A few manufacturers stifle the cigars for some time by keeping them at a temperature of 150° to 160° in a steam chamber before packing to keep them free from insect attack.

(3) CHERROOTS.

(a) *Extent and location*.—The manufacture of cheroots is confined almost entirely to the Madras Presidency and Burma. -

The average annual output of cheroots in India is estimated at 90 to 92 million lbs. or about 18,500 million cheroots, valued at over

9 crores of rupees. Cheroot making is practised as a cottage industry practically all over the Madras Presidency, parts of Mysore and Nizam's Dominions. Trichinopoly is the largest manufacturing centre, and in Woriur, a suburb of Trichinopoly, practically every other house is a centre for manufacturing cheroots and even cigars.

In Burma too, cheroot rolling is essentially a small local industry, women who are rollers with some degree of skill, being found in almost all towns and in most of the tobacco producing villages. Unlike India, the work is always done and the business managed by women. On an average about a thousand million strong cheroots using about 24 million lb. of tobacco are annually manufactured in Burma. The average annual output of mild or torch cheroots is little over 6,000 million cheroots for which about 58 million lb. of tobacco is used. The total value of the cheroots manufactured in Burma is estimated at 8·7 crores of rupees.

(b) *Manufacture*.—The method of manufacturing cheroots is similar to that followed in the making of cigars. In the case of cheroots also, there are three parts, viz., filler, binder and wrapper, but for wrapper leaf of fine and pliable texture is preferred. No imported leaf is generally used in the manufacture of cheroots.

(i) *Madras*.—In the Madras Presidency large, thin and dark coloured leaves are preferred for wrappers. Tobacco from Kistna Lankas is used for such purposes at Madura, in addition to local tobacco. The treatment of fillers is different. Some manufacturers, as at Cannanore, perform a sort of forced sweating on the sorted leaf by immersing it in treacle water for a few minutes and allowing it to lie overnight. When sufficiently dry, the leaves are stripped, scattered on the floor and dried. The wrapper leaf is then kept in moist condition and used for rolling on to the cut filler leaf. After the cheroot is rolled, it is cut at the smoking end. Packing and transport is done almost immediately after drying. Although cheroots are considered to improve in smoking quality on storage, the manufacturers usually allow for this only during transit. The filler leaf is got from Guntur in addition to local supplies from Erode, Arvankurchi, Mettupalayam, Bhawani, Thammanpatti and Dindigul which have all reputation for their cheroot tobacco. Tobacco from these places is often mixed and blended to give a desired flavour to the filler leaf.

(ii) *Burma*.—The Burmese cheroots are of two kinds, the strong cheroot or *hse-byin-leik* made entirely of tobacco, which is smoked by Europeans and by certain lower Burma town dwellers, and the mild cheroot with its wrapper of *maize-hpet* or *thanat-hpet* filled with mixture of chopped tobacco stalks and leaf which is the general smoke of the Burmese people (see plate facing page 323). When the wrapper used is the sheath of the maize cob it is called *hse-baw-leik* and when the wrapper is the prepared leaf of *thanat-bin* (*cordia spp.*); *thanat-hpet-leik* or *shan-hpet-leik* the latter name having reference to the Shan States whence the *hpet* or wrapper is obtained.

Between the *hse-baw-leik* and the *shan-hpet-leik* there is no difference in flavour, but the *shan-hpet* or *thanat-hpet* covering, by reason of its more finished appearance and more even burn is preferred by the townsmen, whilst the rural population content themselves with the less showy and more fiery wrapper made from the sheath of maize-cob. In certain areas, use as a wrapper is made of the sheath which envelopes the leaf-base of the *kun-bin* (*areca-nut-palm* tree). The mild cheroot in this case is called *akun-hpet-leik*.

In the strong cheroots, only *e-hse* or shade-cured tobacco such as is produced in the Kama and Shwegen areas is used. The cheroot, like the cigar, is made up of three components, the wrapper (*ta-bet* or *a-shay*), the binder (*tat-ta-bet* or *a-toh*), and the filler (*a-sa*). Of these, the wrapper is selected on account of its appearance and elasticity, and the filler for the flavour which it imparts. In theory at any rate, they should be represented by entirely different types of tobacco. In actual practice one variety is generally made to serve all the three purposes, with possibly a small admixture of other varieties to the filler to give a desired flavour.

The rolling of strong cheroots is seldom carried on by a single worker alone, the usual practice being for a skilled worker to be assisted by one moderately skilled and by an apprentice. The apprentice seldom does any rolling, her work being the preliminary occupations of casing and stripping, shaping the wrappers, and drying, winnowing and sieving the filler. In this she may from time to time be assisted by the roller of medium skill. The most skilled worker devotes her time to rolling only. The output of a combination of three persons thus employed is therefore represented by the rolling of the two, and on a daily average works out at about 600 large sized, 800 of medium sized and 1,000 small cheroots.

The work of rolling is generally given on contract, the usual rate being 4 annas per hundred for the large sized cheroots, 3 annas for the medium and Re. 0-2-6 for the small.

In the course of rolling it has become customary with some manufacturers to spray the filler tobacco overnight with "flavourings" made up from very zealously guarded recipes in which brandy, *tan-ye* (fermented liquor from the palmyra palm), vanilla essences, sweetened water, etc., are commonly included. Despite these flavourings, however, very definite preferences exist for the tobaccos of different areas. The *Lanka* tobacco from Shwegen, for example, is more highly esteemed for cheroot making than the Havana type grown in Thayetmyo district.

In the manufacture of mild cheroots, the chopped tobacco stalks are first treated with a solution of salt, jaggery and tamarind pulp and then dried in the sun, after which the mixture is roasted in large open pans to bring out the flavour. When this is cooled, dried tobacco leaf broken into small pieces is mixed with it in the proportion of three parts of chopped stalks to one part of tobacco leaf. Meanwhile, a number of mouth-pieces made from the sheath of maize-cob are rolled and these serve as filters. A number of these mouth-pieces, together with a basket of the prepared filler mixture and a

heap of wrapper leaves are taken by each roller, each of whom performs all the operations in connection with rolling. The wrapper leaf is shaped and laid flat on a table. A mouth-piece and a core of filler mixture are arranged on it and with a deft movement of fingers and thumb the wrapper is rolled round these and tied with a piece of cotton thread. Into the cylinder so made more filler tobacco may be put in. The packing is then formed with a thrust from the finger or a small stick and the top of the wrapper turned in.

Apprenticeship in this work is served in rolling the smallest *shan-hpet-leik* (of about a pencil size), till the apprentice reaches the final stage when she can roll standard class of cheroots, about 8 to 9 inches long and 1 to $1\frac{1}{2}$ inches in diameter. The rates of wages for rolling mild cheroots range from $1\frac{1}{2}$ to 3 annas per 100 according to size. A worker can roll from 200 to 400 cheroots per day.

(4) *Bidis.*

(a) *Extent and location.*—“The making of the *bidi* (the indigenous cigarette) is an industry widely spread over the country. It is partly carried on in the home; but mainly in the workshops in the bigger cities and towns. Every type of building is used, but small workshops preponderate,.....”*. There is practically no area in India where *bidis* are not manufactured to a smaller or greater extent. Over 75,000 million *bidis* are annually manufactured in India using about 70 million lb. of tobacco. The total value of the manufacture is estimated at 7·5 crores of rupees. Almost one-fourth of the total number of *bidis* manufactured in the country is made in the Central Provinces. Madras and Bombay together account for about 40 per cent. of the total, their individual share being almost equal. These three provinces together contribute nearly two-thirds of the *bidis* manufactured in the country. Other areas of importance where *bidis* are manufactured on a fairly large scale are the Mysore State and the Nizam’s Dominions which together manufacture over 11,000 million *bidis* annually. *Bidis* are manufactured in appreciable quantities in many big towns of the United Provinces, Bihar and Bengal. Delhi is an important *bidi* manufacturing centre in the north where about 41 million *bidis* are annually manufactured.

In the Madras Presidency, Madras city is the most important *bidi* manufacturing centre where about ten to twelve thousand persons are reported to be engaged in *bidi* making every day. There are a few manufacturers in the city employing from two to three thousand persons per day. North Arcot is another important centre for *bidi* making in the Presidency with about 75 workshops, a few of which employ up to 3,000 persons per day, half of whom are children. There are several other towns manufacturing *bidis* and the total number of persons employed in *bidi* making in the Presidency is estimated at over 50,000 per day, though the trade generally does not provide work throughout the year.

* Report of the Royal Commission on Labour in India (1931), page 96.

In the Bombay Presidency practically all important towns are *bidi* making centres. Sinnar in the Nasik district is reported to be the most important centre for *bidi* manufacture where about 2,000 persons work every day on *bidi* making. Poona is the next important centre and *bidi* manufacturers claim that the pioneers of the *bidi* making industry in the Central Provinces got their first lessons in Poona.

From the point of view of inter-provincial trade, the *bidis* manufactured in the Central Provinces are the most important. Of the total number of *bidis* manufactured in this Province about 75 per cent. valued at about 1·2 crores of rupees are exported to all parts of India, and even Burma. That the Central Provinces should be an important *bidi* making area may at first appear strange in view of the fact that the quantity and quality of locally grown tobacco is of little consequence. The development of *bidi* making in the provinces has been almost entirely due to the abundant supply of *bidi* wrapper leaf (discussed later), and cheap labour, for *bidis* are hand made. Since it is found more economical to import *bidi* tobacco than to export *bidi* wrapper leaf, which is bulky for transport, *bidi* making has developed mostly at those centres in the Central Provinces where wrapper leaf is most plentiful and cheap. For example, nearly 60 per cent. of the *bidis* made in the provinces are manufactured in the Bhandara district where *bidi* wrapper leaf is plentiful in the local forests. Practically all tobacco used for *bidi* making is imported. There are about 895 *bidi* making shops in the Central Provinces and Berar located in 347 villages and towns. Of these 895 shops, 185 are bigger shops employing, on an average, more than 50 workers per day, while the remaining 710 are smaller concerns, which employ less than 50 workers per day. About three-fifths of the total manufacture of *bidis* in the provinces are controlled by four leading *bidi* making firms from Jubbulpore, Gondia, Nagpur and Kamptee. The average daily output of *bidis* in the provinces is estimated at about 5 crores. The number of persons engaged in *bidi* making is little over 42,000, of which about 31,000 persons work in the Bhandara district alone.

(b) *Manufacture of bidis*.—The principal ingredients in *bidis* are the *bidi* tobacco mixture and the wrapper leaf. The most popular and widely used *bidi* tobaccos are the varieties grown in the Charotar and Nipani areas of the Bombay Presidency. The Charotar tobacco is known to the trade as *Gujerati* while the tobacco from the Nipani area is called *Nipani*. In order to cheapen the cost of *bidi* manufacture, sometimes tobacco from Bihar, United Provinces, Nizam's Dominions, Mysore and scraps and rejections from Guntur tobacco are used to mix with the *Gujerat* and *Nipani* tobaccos.

Generally, there are three sizes of *bidis*, big, medium and small according to their lengths which are about 3 inches, 2½ inches and 2 inches respectively. About four-fifths of the *bidis* manufactured in the country, however, are of medium size. By weight, the proportion of wrapper leaf to tobacco varies from 40 to 50 per cent.

(i) *Wrapper leaf*.—The wrappers used for making *bidis* are the leaves of trees, *Diospyrus melanoxylon* and *Diospyrus Ebenum*, known in different areas of the country as *temburni*, *temburi*, *tumuki*, *tendu*, *toopsal*, *tunki*, etc. The trees grow wild in the forests of Central India, Central Provinces and Nizam's Dominions which form the main source of supply of *bidi* wrapper leaf to the country. Leaves of *apta* tree (*Bauhinia racemosa*) are also used to a small scale as wrapper, but mostly in the Bombay Presidency. The right to collect leaves from the forest trees is usually given by auction to contractors and a few *bidi* manufacturers from the Central Provinces themselves take these contracts.

The most desirable quality characteristics of these wrapper leaves are that they should be of medium thickness, pliable, large sized, and of colour ranging from greenish yellow to light copper red. On an average, a leaf yields 2 to 3 *bidi* wrappers. The price of the wrapper leaves in the Central Provinces is about Rs. 4-8-0 per thousand bundles of fair average size weighing approximately 3 maunds. They are usually transported in large size gunny bags each containing about 300 to 350 bundles (one bundle having about 75 to 100 leaves) and weighing about a maund.

(ii) *Making of bidis*.—The manufacture of *bidis* (see plate facing page 322) is a very simple process. The bundles of wrapper leaves are first soaked in water to soften the leaves which are then cut with a pair of scissors into rectangular shapes of leaf. The average dimensions of the cut pieces are about 3·2 inches in length on one side, about 3 inches length on the other side and breadths 1·8 inches and 1·5 inches on the two sides. Some of the manufacturers, particularly from the Central Provinces, provide the workers with a piece of tin of the proper shape and size to enable the worker to cut the leaf correctly; The usual practice is for the worker to take the bundles of wrapper leaf to his house in the evening and cut the leaves into pieces at night after first soaking the bundles in water. In this way he has a good supply in hand with which to begin his work the next day. In the actual working of *bidis*, a quantity of tobacco mixture is taken in a scoop of iron or bamboo tray while the operator keeps a number of cut pieces of wrapper leaves close by. The wrapper is held by him in his left hand and the tobacco mixture is placed on it and evenly spread along the length. The wrapper is then rolled between the fingers and palms of hand into conical shape and the top or the broad end is closed by bending it over the wrapper with the fingers. The other end is tied with a piece of white or coloured cotton thread.

In the case of workers who work in the *bidi* making workshops, (see plate facing page 322), it is the usual practice to give to each labourer about 10 bundles of wrapper leaves (sufficient to make about 1,000 *bidis*) to carry them to his house where they are cut to proper size at night. On his arrival at the workshop the next morning he is provided with a iron or bamboo tray to keep his material. Before commencing the day's work he is given a supply of tobacco mixture in accordance with his skill and capacity, usually about 5 to 8 *chhataks* of tobacco (sufficient for about 1,000 *bidis*).



Some of the trade mark labels used by *bidi* manufacturers indicating the very close resemblance of trade marks in regard to form, size, colour and other particulars. Each of the seven labels belongs to a different manufacturer.

[Facing page 329.]



A roll of manufactured *hookah* tobacco.

and white or coloured thread depending on the brands he is making. It is the usual practice with manufacturers to use thread of different colours to distinguish different brands. After the day's work is over, the worker ties the *bidis* with thread into bundles of 25 each which are then handed over to the manager or inspector of the workshop, who examines and counts them and issues a chit in acknowledgment of good *bidis* received, for payment is made only for good *bidis*. After receiving the *bidi* bundles in the workshop, they are arranged in trays which are placed in a warm room for *drying*, after which each bundle is wrapped in thin paper and labelled. In the Central Provinces, it is the usual practice to give the work of wrapping and labelling on a contract at about $1\frac{1}{4}$ to 2 pice per 1,000 *bidis*. 20 small bundles are again packed into a bigger bundle which thus contains 500 *bidis*. These bundles are then ready for the market. They are then packed in gunny bags or bamboo baskets or wooden cases for transport.

Manufacturers also adopt the practice of giving a definite quantity of wrapper leaf, *bidi* tobacco mixture and thread to workers for carrying the same to their houses for making *bidis*. In most cases such workers are women who make *bidis* at their home during their spare time and carry *bidis* thus made to the workshop. The quantity of wrapper leaf, *bidi* tobacco mixture and thread given to each worker is based on the requirements to make 1,000 *bidis*. Payment is made to the workers on receipt of good *bidis*.

(iii) *Cost of making bidis*.—The cost of making *bidis* consists of the cost of tobacco mixture, wrapper leaf, labour charges, labelling and packing. The following figures show the average cost of production per 1,000 *bidis* at some of the important *bidi* manufacturing centres in the Central Provinces.

Cost of manufacture of bidis in the Central Provinces.

Name of Centre.	Cost of tobacco @ 6 chhataks.	Cost of 10 bundles of wrapper leaves.	Cost of labelling and packing.	Labour charges.	Total cost per 1,000 bidis.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Sangor, Jubbulpore or Kamptee	0 3 0	0 0 9	0 0 6	0 7 0	0 11 3
Gondia	0 3 0	0 0 9	0 0 6	0 5 6	0 9 9
Tirora	0 3 0	0 0 9	0 0 6	0 4 6	0 8 9
Khandwa	0 3 0	0 1 0	0 0 6	0 8 0	0 12 6

It will be observed that the most important item of the cost is labour. The payment to workers, practically all over the country, is made on piece work basis, i.e., per 1,000 *bidis*. The rate in the Central Provinces ranges from $4\frac{1}{2}$ to 8 annas per thousand *bidis*, while in

Madras it is about 8 annas per thousand. The rate in Bombay ranges from 6 to 8 annas per thousand while in Sind and other areas the rate may be even up to 12 annas per thousand, particularly in the case of male workers. The rate for workers who prefer to take the required material to their houses for making *bidis* is usually 1 to 2 annas lower per thousand *bidis* as compared with the rate given to workers who work in the *bidi* workshops.

(5) *Hookah* TOBACCO.

(a) *Extent and location.*—The consumption and manufacture of *hookah* tobacco in the country are almost entirely confined to the northern provinces, namely, the N.-W. F. P., the Punjab, Delhi, United Provinces, Bihar, Bengal, and parts of Rajputana and Central India. The annual production of *hookah* tobacco in the country is estimated at over 1,300 million lb. valued at about 9·6 crores of rupees. Almost two-fifths of the production is confined to the United Provinces.

In the Punjab and Bihar, *hookah* tobacco is made in practically all towns and many of the villages. In Bengal, it is estimated that about 85 per cent. of the local manufacture of *hookah* tobacco is done by the consumers themselves or by small manufacturers in their homes on a very modest scale. Delhi is an important manufacturing centre, the annual average production being estimated at about 36,000 maunds.

The *hookah* tobacco manufactured in the United Provinces is famous all over the country. Lucknow, Gorakhpur and Rampur are the best known centres for *hookah* tobacco in the provinces though it is manufactured in almost all towns and several villages. The annual output of manufactured *hookah* tobacco in the provinces is estimated at over 6 million maunds.

(b) *Manufacture.*—The manufactured *hookah* tobaccos may be generally divided into two types, the *Karwa* or strong and pungent and *Mitha* or sweet and mild.

In the manufacture of *Karwa hookah* tobacco, the cured tobacco plants, if moist, are first dried by spreading them in the sun on a clean floor. When sufficiently brittle, they are pounded with the help of a big wooden mortar and pestle. The powdered mass is then passed through sieves to remove fine sand and earth. Treacle, which is an essential ingredient in the preparation of *hookah* tobacco, is generally prepared by boiling molasses in iron pans so as to remove part of the moisture contained in the molasses. In the preparation of ordinary *Karwa hookah* tobacco, commonly used by poor people, a quantity of treacle ranging from one to one and a half times the weight of tobacco dust is poured on the tobacco powder and well mixed first by wooden ladles and when cool by hand and made into balls or cakes of different sizes and shapes (see plate facing page 329). Sometimes powdered spices like cloves, cardamom, cinnamon and sandal-wood are added at the time of mixing the tobacco dust with treacle to manufacture better quality *Karwa hookah*.

tobacco. The treacle is believed to assist the fermentation and consequent decomposition of the tobacco leaves, stalks and mid-ribs. It imparts a sweet taste, dark colour and prevents rapid drying.

The method of manufacturing high class or *Mitha hookah* tobaccos, however, is rather complicated and costly and takes a considerable time before the final product is ready for the market. In this case tobacco powder is treated with ripe or over-ripe fruits like *ber*, figs, apples, pineapples, plums, plantains and guavas and the whole mass is made into small balls which are allowed to dry. The dried balls are then again powdered and a quantity of treacle is added, kneading the mass constantly with ladles or hand. The mass thus treated is then put in big earthen jars buried in the ground and the mouth of the jars closed with a lid and mud plaster. The preparation which is locally known as *Khambira* or *Khameera* is ready after a period of one to three months, though in the manufacture of better quality *hookah* tobacco, the *Khambira* is not considered sufficiently mature for use till it has been in store at least for one year. To the *Khambira* thus obtained, another quantity of tobacco powder treated with treacle, is added and the mixture well stirred to ensure a thorough mixing. At the time of mixing powdered spices and perfumes like roses, sandal-wood, cloves, cardamom, cinnamon, etc., are added. Sometimes the *Khambira* is prepared without the tobacco powder. In such cases, a mixture of fruits and treacle is first boiled and then put in the buried earthen jars which are then closed up and allowed to remain undisturbed for a period ranging from one to six months or even a year. Powdered tobacco is then added to the *Khambira* along with spices and perfumes.

There is no definite proportion between the tobacco, treacle, spices and fruits used in the manufacture of ordinary or high class *hookah* and each manufacturer follows his own taste and judgment.

In order to increase the bulk and cheapen the cost of manufacture, most of the *hookah* manufacturers use large quantities of various adulterants, the principal material used for adulteration being fine sand, earth, quick lime, *reh*, or carbonate of soda, cotton waste, dried and powdered leaves of trees and coir fibre. Enquiries from manufacturers and *hookah* tobacco dealers indicate that there is no definite or common proportion in the quantities of different adulterants used. Each manufacturer tries his own combination and as soon as he sees that a particular combination has captured the consumer's taste, he retains the same as his trade secret.

(6) CHEWING TOBACCO.

(a) *Extent and location.*—Over 156 million lb. of chewing tobacco leaf valued at a little over 3 crores of rupees is annually consumed in the country. About 84 per cent. of this quantity is consumed in raw condition, i.e., without any process of manufacture. In the consumption of this bulk, a part of the leaf is taken and chewed as is the practice all over Southern India. The other method

of chewing raw tobacco is to take a small bit of powdered chewing tobacco in the palm of the left hand, add a small quantity of slaked lime and rub it with right hand thumb, so that the tobacco is covered with a thin coating of lime. The tobacco thus prepared is then put in the mouth and slowly chewed.

The annual average production of manufactured chewing tobacco is about 25 million lb. valued at about a crore and five lakhs of rupees. The United Provinces and Delhi are the most important areas for the manufacture of chewing tobaccos and account for almost 90 per cent. of the total quantity of chewing tobacco manufactured in the country. In the United Provinces, the manufacture is carried out in many towns but the important centres appear to be Lucknow and Benares. Delhi city is also noted for its chewing tobacco.

(b) *Manufacture*.—Many kinds of chewing tobacco are manufactured but the more important types appear to be *Zarda*, paste or *Qiwam*, granules or *Danedar* and pills.

In the preparation of *Zarda* the tobacco leaf is first broken into small pieces and then boiled in lime water along with spices till the water is evaporated. The particles of tobacco left behind are then dried and coloured with saffron or other vegetable dyes. Sometimes the prepared *Zarda* is mixed with finely cut betelnut and other spices.

The method of manufacturing other higher types of chewing tobaccos, however, is as elaborate as that followed in the preparation of high class *hookah* tobaccos. Spices and scented waters are liberally used in addition to well-flavoured and thick tobacco leaves. The stalks, mid-ribs and veins of the leaves are first removed and then the leaves are soaked and boiled in water to which scented waters, like rose-water, may be added. Spices like saffron, cardamom, ainsseed and musk are also added in powdered form. The whole mass is then stirred and allowed to digest. The pulpy material is then allowed to dry after straining and removing the remnants of the stalks, mid-ribs and veins of tobacco leaves. The product then assumes the consistency of a thick and rough paste which is known as *Qiwam*.

In the preparation of pills, the tobacco paste, as prepared above, is further dried and the material made into small pills which are then further dried in the shade. When it is not desired to make pills, the material is fully dried and made into a granular paste, sometimes by adding a further amount of finely cut tobacco leaf. The chewing tobacco thus prepared is usually blackish in colour, but sometimes vegetable dyes are used to give it a reddish tinge. The pills and the granules are sometimes coated with gold and silver foils to cater for the demand of richer people.

(7) SNUFF.

(a) *Extent and location*.—Snuff is manufactured in several provinces and Indian States, but the most important areas appear to be

Madras, the Punjab and the North-West Frontier Province, which together account for a little less than one-third of the total production of snuff in the country. The annual average production in India is estimated at 21·7 million lb. valued at about a crore and a half rupees.

In the Madras Presidency, Madras city and Mangalore are the most important centres for the manufacture of snuff. There are about ten large manufacturers in Madras city, some of whom employ as many as 50 persons per day, besides about a hundred small manufacturers. At Mangalore, there is a large number of small manufacturers, but the bulk of the manufacture appears to be controlled by four big manufacturers. The annual average production of snuff in the Madras Presidency is estimated at over 3 million lb.

In the Punjab, snuff is made on a large scale at Hazro, Alipur, Rawalpindi, Multan, Dehra Ghazi Khan and other towns. The annual average production in the province is estimated at a little less than 3 million lb. of which 80 per cent. is concentrated in Hazro alone.

In the North-West Frontier Province, the manufacture of snuff is confined only to Peshawar where there are about half a dozen manufacturers whose total annual output is estimated at 1,000 to 1,200 maunds.

(b) *Manufacture*.—In the manufacture of snuff in Madras the first operation consists of the separation of stalks and mid-ribs from the leaves. The leafy portion is then crumbled into small pieces, fried and powdered. The powdered tobacco is then further pounded by means of a mortar and a pestle and then sieved. The sieved tobacco powder is afterwards gently heated, the mass being turned over frequently to prevent its being charred. After cooling, lime and *ghee* are added and the mixture is then passed through sieves of fine meshes. The snuff so prepared is then ready for use. Sometimes musk, boric acid, ammonium salts, scents, etc., are added in varying proportion to the ordinary snuff to prepare the scented snuff, which is usually mixed in varying proportions with ordinary snuff before offering for sale.

In the Punjab, the dried tobacco leaves are first crumbled into small pieces which are then ground into fine powder. The powder is afterwards soaked in water for a period ranging from 10 to 20 days when fermentation sets in. When the mixture emits a characteristic odour, the fermented stuff is removed and dried. At this stage it is locally known as *Khamir*. When dry, the *Khamir* is pounded in a wooden mortar and pestle and then shifted through cheese-cloth. Next, certain ingredients like slaked lime, butter, almonds, pepper, ammonium chloride, etc., are added. Sometimes fine tobacco dust is also mixed to cheapen the cost of production. The whole mass is then again ground after which it is again passed through cheese-cloth. The grinding and sifting process is repeated until the product attains the desired stage of fineness.

In the North-West Frontier Province, the tobacco leaf is first reduced to fine powder. The water-mills at Seria Saleh in Peshawar specialise in this grinding work. The tobacco powder is then stored for fermentation in closed cells which are covered with old woollen blankets or quilts for a period of 2 to 3 months. During this period of fermentation, the powder is sprinkled with water, stirred, aired and again stored. This process is repeated till the powder acquires the desirable aroma and strong flavour. Afterwards, lime water and dyes may be added in small quantities.

B.—Adulteration.

In the manufacture of cigarettes, cigars and cheroots no adulteration is generally done apart from the "flavourings" used by certain manufacturers. The types of "flavourings" used are considered as secret and hence it is difficult to indicate whether or not the "flavourings" used by certain manufacturers are deleterious to health. As already stated, in the United Kingdom the use of even glycerine and di-ethylene glycol is considered illegal.

In the manufacture of *bidis* generally no adulteration of any kind is done. Different types of tobacco are, however, mixed to prepare a blend of *bidi* tobacco powder and for this purpose small quantities of *hookah* tobacco may be used, as is done at certain places in northern India. A case of adulteration of *bidi* tobacco has, however, been recently noted during the course of this survey. A certain gentleman from Penukonda in Anantapur district of the Madras Presidency has prepared a so-called "economy tobacco mixture" for which he has applied for a patent in British India, Mysore State and the Nizam's Dominions. The procedure in the preparation of this "economy tobacco mixture" consists of selecting *Gujerati* or *Nipani* tobacco leaves, soaking them in water, washing and drying. The leaves are then to be treated with a solution of sodium nitrate and hydrogen peroxide which, the gentleman claims help ignition and retention of fire. The leaves are then soaked in syrup and kept under pressure for 24 hours. The wrapper leaf used for making *bidis* is then similarly treated. Both the tobacco leaves and wrapper leaves, thus treated, are then cut into five shreds and mixed in different proportions, say 25 of tobacco to 75 of wrapper leaf, or more commonly in equal shares. This mixture is then used in making *bidis* in the ordinary way. In making these *bidis* a small piece of cotton wool is placed at the smoking end and this acts like a filter. It is reported that about 2 lakhs of *bidis* manufactured from such adulterated tobacco at Bellary are being sold every month at Rs. 1-4-0 per thousand, i.e., the same rate for which ordinary types of *bidis* are sold.

Possibly the largest adulteration of tobacco takes place in the manufacture of *hookah* tobacco. There is a general belief that *hookah* smoking is the least injurious to health as the smoke passes through water in the bubble-bubbles (see plate facing page 361) and that it gives more pleasure as compared with cigarettes and *bidis*. The chief causes which are responsible for the decline of

hookah smoking are the inconvenience of taking *hookah* from one place to another, trouble and time required for preparing the tobacco and the smoke and the want of pure and really good stuff in the market. The general quality of the *hookah* tobacco available in the market is considered to be very inferior on account of a high proportion of admixture with sand, earth and other adulterants. If the manufacturers standardise their articles, adopt registered trade-marks and certify and publish actual constituents of their prepared *hookah* tobacco, it would appear possible to increase to a small extent the local demand for the manufactured article, inspite of the fact that many of the labouring classes and men of small means are increasingly taking to *bidis* and cheap cigarettes.

As in the case of *hookah* tobacco, many of the people in the habit of chewing tobacco prefer to have pure stuff, and being unaware of the contents of the manufactured chewing tobacco refrain from using it. If, however, the manufacturers of chewing tobacco use labels describing the formula or the recipes of the ingredients used, as is done in the case of some of the patent medicines and other proprietary articles manufactured in European countries, there seems to be a likelihood of increasing to a small extent the internal demand for manufactured chewing tobacco.

C.—Trade-marks and brands.

All the leading manufacturers of cigarettes, cigars, cheroots and *bidis* have their own specific brands, some of which are reported by them to be registered. There is, however, no adequate provision of law in British India for the registration of trade-marks, so as to establish statutory title to them. The existing law for preventing the imitation of popular brands is reported to be very cumbersome.

There have been several complaints both from the Indian and British manufacturers and merchants of the flagrant copying of well-known trade-marks and of the flooding of the markets with cheap inferior imitations of popular brands of goods of all kinds. This has been particularly noticeable, so far as tobacco trade is concerned, in the case of cigarettes, cigars and *bidis* (see plate facing page 328). On account of the copying of trade-marks and brands the owners of marks often find their reputation damaged irreparably by such misrepresentation and the consequent loss of business in many cases is permanent.

Though there is no legal provision in India for registration of trade-marks and brands, many manufacturers get their brands registered with the local Departments of Registration. There is no provision in the Indian Registration Act for the registration of trade-mark as it applies to the registration of documents only. The practice obtaining in many areas is to engross a deed of declaration describing therein the trade-marks and declaring the ownership thereof. A copy of the trade-mark is attached to the deed and the document may be signed before a Magistrate or a Justice of Peace. The executant presents the deed for registration in the Registration Office where it is registered. In this process it is the document that is registered and not the trade-mark itself.

In spite of the fact that a law for the registration of trade-marks does not exist in India, protection to owners of trade-marks is given by certain sections of the Indian Merchandise Marks Act of 1889 and of the Indian Penal Code. There is, however, no adequate provision for statutory title to a trade-mark and when the title to a trade-mark has to be proved, protection is sought under the provisions of the above two Acts. While seeking protection under these Acts, complaints can lie with civil courts for injunction or for damages but as the civil procedure is often considered to be expensive and slow, protection is sometimes sought in criminal courts.

It is further found that some manufacturers in Indian States copy well known trade-marks and brands particularly of *bidis*. In such cases, recourse must be had to the laws of the States concerned and it is reported that it is often difficult to secure the necessary protection.

It is therefore very essential in the interest of the development of trade that complete legal provision should be made for the registration and protection of trade-marks and brands in British India and also in all Indian States. In this connection it may be observed that the Government of India have already got this question in hand and it is expected that a bill may be introduced in the central legislature in the near future.

D.—Prices of tobacco products.

(1) CIGARETTES.

The wholesale prices of all popular brands of cigarettes are fairly uniform all over the country, except in Indian States where they are influenced by the amount of import duty levied by the States. The wholesale rates of "Will's Gold Flake" cigarettes, for example, range from Rs. 20-8-0 to Rs. 21-0-0 per thousand, those of "Scissors" from Rs. 17-0-0 to Rs. 17-8-0 per thousand, of "Passing Show" from Rs. 14-0-0 to Rs. 14-6-0 per thousand and of "Craven A" from Rs. 24-0-0 to Rs. 24-8-0 per thousand. Cheaper brands selling at one anna per carton of ten are sold wholesale at Rs. 4 to Rs. 5 per thousand, while in the case of still cheaper makes like the "Golconda" and "Charminar" manufactured at Hyderabad (Deccan) and retailed at half an anna per packet of ten, the wholesale rates are Rs. 2-5-0 to Rs. 2-6-0 per thousand cigarettes.

In many Indian States, the wholesale rates are higher. Thus in the Travancore State, the wholesale prices of "Will's Gold Flake" are Rs. 23-6-0 per thousand while "Scissors" cigarettes sell at Rs. 21-0-0 per thousand wholesale.

Though there is a small variation in the wholesale prices, the retail rates of all the popular brands of cigarettes all over British India and Burma are uniform. Thus a carton of "Will's Gold Flake" cigarettes costs 3½ annas, whether it is purchased in Delhi, Lahore, Peshawar, Lucknow, Patna, Calcutta, Madras or Rangoon.

Similarly the price of a 50 cigarette tin of "Craven A" and "State Express, 555" cost Rs. 1-4-0 and Rs. 1-8-0, respectively almost in any town of British India and Burma.

The extent of margin between the wholesale and retail prices may be seen from the following few typical examples :—

Margin between the wholesale and retail prices of cigarettes.

(Per thousand cigarettes.)

	Will's Gold Flake.		Charminar.	Guinea Gold.
	Allahabad.	Travancore.	Hyderabad. (Dn.)	Madras.
Wholesale	Rs. A. P. 21 8 0	Rs. A. P 23 6 0	Rs. A. P. 2 6 0	Rs. A. P. 5 4 0
Retail	21 14 0	23 12 0	3 2 0	6 4 0
Margin*	0 6 0	0 6 0	0 12 0	1 0 0

*Exclusive of discount (see page 343).

It therefore appears that there is a larger margin of profit by sale of cheaper brands of cigarettes. But it may be pointed out that in addition to the margin between the wholesale and retail prices, the manufacturers allow a commission to wholesale dealers—part of which is passed on to retailers as will be pointed out later—the rate of which is lower for the cheaper brands of cigarettes and higher for the high-grade products.

There is a complete absence of periodical variation in cigarette prices excepting possibly in the case of new brands put on the market by new manufacturing concerns, anxious to gain a footing in the market. Even year to year variation is rare, particularly in the retail prices charged to consumers, though some manufacturers occasionally make a slight reduction in wholesale prices of some brands whenever there is competition from similar products of other companies.

The following statement shows, during the past 6 years, the wholesale and retail prices of "Will's Gold Flake" cigarettes at Allahabad and Rangoon, along with the harvest prices of raw uncured Virginia cigarette tobacco at Guntur and the declared values of imported unmanufactured tobacco, about 95 per cent. of which is used in the manufacture of cigarettes.

Wholesale and retail prices of 1st quality cigarettes, harvest prices of Virginia flue-cured tobacco at Guntur and declared values of imported unmanufactured tobacco.

Year.	Allahabad.		Rangoon.		Harvest prices of Virginia flue-cured tobacco at Guntur, per candy of 500 lb.	Declared value of imported unmanufactured tobacco. * (ex-duty) per lb.
	Per 1,000 cigarettes.	Per carton of 10 cigarettes.	Per 1,000 cigarettes.	Per carton of 10 cigarettes.		
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1932 ..	21 1 9	0 3 6	21 4 0	0 3 6	154 0 0	1 0 9
1933 ..	19 5 7	0 3 6	21 4 0	0 3 6	148 0 0	1 3 6
1934 ..	21 5 0	0 3 6	21 8 0	0 3 6	127 0 0	1 2 1
1935 ..	21 5 0	0 3 6	21 8 0	0 3 6	143 0 0	1 2 0
1936 ..	21 5 0	0 3 6	21 8 0	0 3 6	150 0 0	1 1 11
1937 ..	21 5 0	0 3 6	21 8 0	0 3 6	187 0 0	1 7 2

What is true of Allahabad and Rangoon is equally true for other places. It is evident that there is no change in the retail prices of cigarettes, though wholesale prices vary occasionally to a small extent. It is also evident that there is no relation, between the prices of Indian and imported cigarette tobacco and those of cigarettes. In fact it appears to be the policy with all leading cigarettes manufacturers not to make any change in the cigarette prices, particularly in the retail rates charged to consumers, as almost every smoker of one of the popular brands of cigarettes will remember that during the past several years there has been no change in the price he pays for his cigarettes.

It may be, however, observed that in the case of a few popular brands, there has been a definite reduction in the wholesale and retail prices during the past four or five years. Thus, for example, the wholesale price of a leading brand of cigarettes in Delhi in 1933 was Rs. 17-8-0 per thousand as against Rs. 14-6-0 per thousand from 1934 onwards. This considerable reduction in price was possible because until 1933, these cigarettes were being imported from abroad but from that year onwards they are being manufactured in India and offered at lower rates to the public.

*These figures refer to financial years commencing from April 1. The figures shown against 1932, 1933, etc., are for financial years, 1931-32, 1932-33, etc., as it takes some time before the unmanufactured tobacco is used in making cigarettes.

(2) CIGARS.

There are numerous brands of cigars available in the market and there is considerable confusion in the names of brands. Many manufacturers adopt the same or similar names for their brands. The most popular cigars are those manufactured by two firms at Dindigul and Madras. Cigars manufactured by smaller manufacturers at Trichinopoly have less keen demand.

Cigars are sold in boxes containing 25, 50 or 100 cigars and a box of cigars forms the unit of sale in wholesale and retail trade, except when they are sometimes retailed singly by hotels, restaurants and tobacconists. So far as the catalogue prices are concerned, there is no difference between the wholesale and retail prices. The manufacturers allow a discount ranging from about 5 to 40 per cent. on the published prices to all cigar dealers and tobacconists. The cheaper brands are allowed a lower rate of discount than that permitted on the more expensive brands. The price of a box of 50 cigars varies in accordance with the type and brand and may range from Rs. 2-0-0 for "Planter's Ordinary, No. 1 (Spencer's)" to Rs. 12-10-0 for "Casino Coronas de Luxe (Spencer's)".

Enquiries indicate that there has been practically no change in the prices of cigars at least during the past ten years and there is complete absence of seasonal variation in prices. Except in several Indian States where prices are inflated on account of the levy of import duties, license fees, etc., the prices of cigars are almost uniform all over the country, as it is the practice with manufacturers to bear the transport, octroi, terminal and other charges incidental to despatch of cigars to the dealers. Variation of prices from one dealer to another is small and occasional as it is one of the conditions of wholesale purchase, that cigars will be sold to consumers at fixed prices.

(3) CHEROOTS.

High class cheroots like the Oakes & Co.'s cheroots and "Moulmein" cheroots manufactured by Spencer and Co. sell at prices ranging from Rs. 2 to Rs. 5 for a box of 100 cheroots in accordance with the type of the brand. In the case of these cheroots also there is no seasonal variation in prices and no noticeable change in prices has been observed during the past ten years.

The prices of Burmese cheroots vary in accordance with the type and size. Superior quality strong cheroots (*Hse-byin-leik*) are sold at Rs. 2-8-0 to Rs. 3-0-0 per hundred wholesale and half an anna per cheroot in retail. The prices of ordinary bazaar quality strong cheroots range from 5 annas to Rs. 1-2-0 per hundred wholesale and 1/12 to $\frac{1}{4}$ of an anna each in retail. The prices of mild Burmese cheroots vary in accordance with the size and kind of wrapper used. The cheroots which are 11 to 13 inches long and for which the wrapper used is the sheath that envelops the leaf base of *Kun-bin* (areca nut palm) may sell at Rs. 7 to Rs. 25 per hundred at wholesale rates and in retail 2 $\frac{1}{2}$ to 6 annas may be

charged per cheroot. Such cheroots are however used on ceremonial occasions. The wholesale prices of other sizes of cheroots of the same type as above range from 12 annas to Rs. 2-12-0 per hundred and in retail each cheroot may be sold for $\frac{1}{8}$ to $\frac{1}{2}$ of an anna. The cheroots for which maize cob sheath is used as wrapper are sold at Rs. 1-2-0 to Rs. 1-4-0 per hundred wholesale and in retail each cheroot is sold at 2 to 3 pies.

In the Madras Presidency, the ordinary common twisted cheroot widely used by smokers in Southern India may sell wholesale at Rs. 1-7-0 to Rs. 10 per thousand. Brands which are cheaper selling at less than Rs. 5 per thousand are more commonly smoked. The retail prices range from one to five annas per bundle of 25 cheroots.

Both in Burma and Madras there is no seasonal variation in prices and even year to year fluctuation is small and occasional, with all leading manufacturers. The change in prices, if any, is governed mostly by competition from other manufacturers.

(4) *Bidis.*

The wholesale and retail prices of *bidis*, particularly the former, vary almost from one manufacturer to another. The following figures indicate the range of wholesale and retail prices in some of the important areas.

Wholesale and retail prices of bidis.

Area.	Wholesale per 1,000 <i>bidis.</i>				Retail per bundle of 25 <i>bidis.</i>
Bengal..	Rs. 1-0-0 to Rs. 1-5-0	..	..	..	6 to 9 pies.
Bombay	Rs. 1-0-0 to Rs. 1-10-0	..	..	..	6 to 9 pies.
Madras	Rs. 1-3-6 to Rs. 1-15-3	..	..	..	6 to 12 pies.
C. P.	Rs. 0-14-6 to Rs. 1-2-0	..	..	..	6 to 9 pies.
Punjab	Rs. 1-4-3 to Rs. 2-5-0	..	..	..	9 to 15 pies.
U. P.	Rs. 0-10-0 to Rs. 1-0-3	..	..	..	6 pies.
Delhi	Rs. 1-0-0 to Rs. 2-0-0.	..	..	..	6 to 12 pies.
Assam	Rs. 1-0-0 to Rs. 1-4-0	..	..	..	6 to 9 pies.
Hyderabad (Dn.) ..	Rs. 0-10-8 to Rs. 2-3-5	..	..	..	4 to 12 pies.
Burma..	Rs. 1-12-0 to Rs. 2-8-0	..	..	..	12 to 15 pies.

It is observed that there is practically no seasonal variation in the prices of *bidis* and even year to year variation is only occasional.

and takes place whenever there is competition among *bidi* manufacturers. Enquiries made of some of the leading *bidi* manufacturers in the Central Provinces indicate that during the past eight years *bidi* prices have declined by about four annas per thousand chiefly as a result of competition among the manufacturers themselves. Generally, variations in the prices of *bidi* tobacco affect but little the prices of *bidis*.

(5) MANUFACTURED *hookah* TOBACCO.

Bulk of the manufacturers themselves retail the *hookah* tobacco. Prices vary from one manufacturer to another in accordance with the kind and quantity of ingredients and adulterants used in manufacture. The retail prices of ordinary *hookah* tobacco range from 2 to 4 annas per seer while those of expensive types may be as high as Re. 1 to Rs. 2 per seer. The wholesale prices are generally 20 to 30 per cent. lower than the retail prices. In common with other tobacco products there is almost complete absence of seasonal variation in prices and it is further observed that there is practically no relation between the prices of manufactured *hookah* tobacco and those of the unmanufactured product.

(6) MANUFACTURED CHEWING TOBACCO.

In the case of manufactured chewing tobacco, the manufacturers fix the price of each quality in accordance with the kind and quality of tobacco and other ingredients used. In few of the tobacco products does such a wide range of quality and prices exist. The cost of the tobacco forms but a fraction of the total cost of manufactured chewing tobacco's and in fixing the prices, the cost of other ingredients used, like nutmeg, musk, saffron, scents, cardamom and other spices, play a dominant part. The following figures show the range of prices for different kinds of chewing tobaccos sold by a leading manufacturing firm in Delhi City.

Price of chewing tobacco in Delhi.

(Per seer.)

Name of chewing tobacco.	1st quality. Rs. A. P.	2nd quality. Rs. A. P.	3rd quality. Rs. A. P.	4th quality. Rs. A. P.	5th quality. Rs. A. P.
Zafrani Benarsi Patti or Tobacco <i>Mushki Danadar</i>	64 0 0	32 0 0	17 0 0	9 0 0	5 0 0
<i>Mushki Patti</i>	5 0 0	2 8 0	2 0 0	1 8 0	..
Zafrani Benarsi Patti <i>Sada</i>	2 8 0	2 0 0	1 8 0	..	..
Tobacco <i>Surkh Patti</i> ..	32 0 0	16 0 0	9 0 0	5 0 0	2 8 0

The prices given in the above table are wholesale rates and the retail prices are generally about 25 to 30 per cent. higher. The unit

of retail sale is a tola and the retail prices range from 1 anna to Rs. 4 or even Rs. 5 per tola. Since the cost of tobacco itself forms but a fraction of the total cost of manufacture of chewing tobacco, the level of prices of unmanufactured tobacco has no effect on the prices of manufactured chewing tobaccos and seasonal variations and year to year fluctuations are occasional. Changes in prices, if any, are made entirely on account of competition from other manufacturers.

(7) SNUFF.

The prices of snuff also are governed to a large extent by the kind and amount of ingredients used in manufacture. In Madras the wholesale rates range from 10 annas to Rs. 16 per seer while in the case of high-class snuff sold in Bengal the prices may be as high as Rs. 18 per seer. Similar are the price variations observed in other areas. The retail sale is very rarely done on the basis of weight and almost all consumers purchase snuff in retail either in packets or phials. Generally, the retail rates are about $12\frac{1}{2}$ to 25 per cent. higher than the wholesale prices. The periodicity and trend of prices are almost non-existent and the prices are governed almost entirely by competition among the manufacturers and the cost of manufacture.

E.—Distribution.

The total *ex-factory* value of all the tobacco products, including unmanufactured tobacco consumed in its raw condition, as in the case of *hookah* and chewing, is estimated at about 37 crores of rupees. Adding at a moderate estimate, 25 per cent. on account of transport and distributing charges, the total value of tobacco trade can be easily estimated at over 46 crores of rupees per annum.

(1) WHOLESALE TRADE.

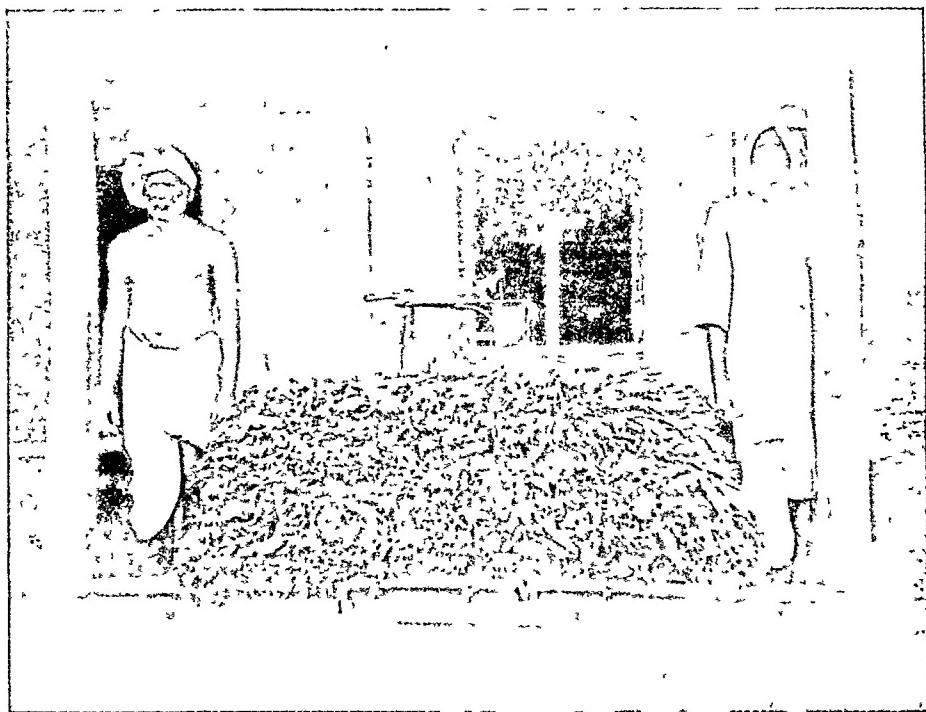
The wholesale distribution of tobacco products is done by one or more of the following methods :—

- (a) Manufacturer's distributing depots.
- (b) Distribution through agents and sub-agents.
- (c) Distribution through travelling inspectors.
- (d) Direct sale to retailers and consumers.

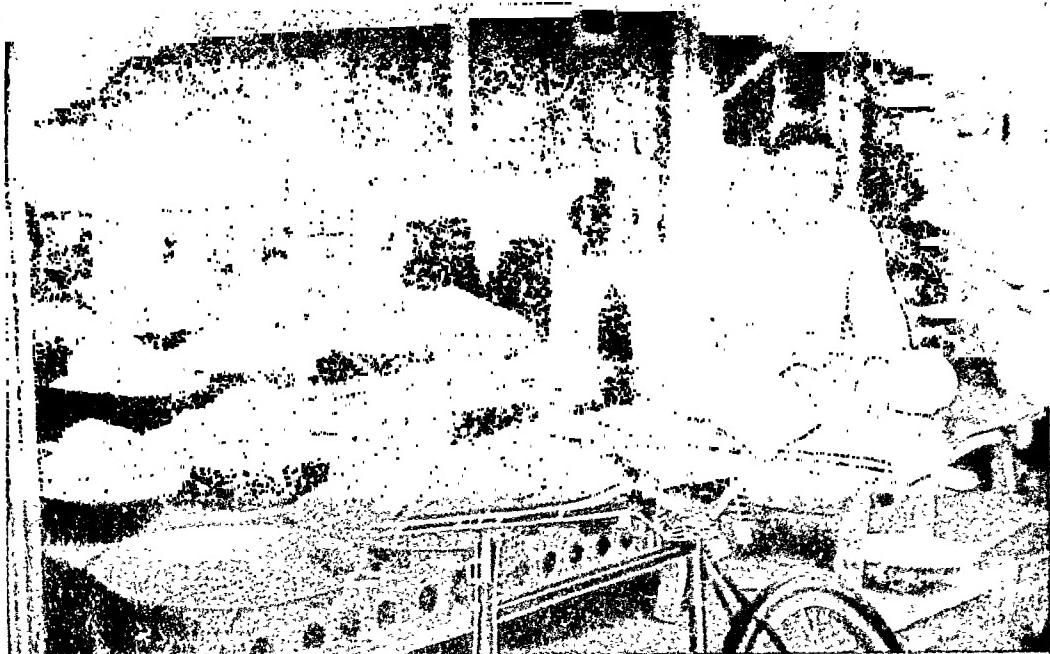
(a) *Manufacturer's distributing depots.*—Almost all the leading cigarette manufacturers in the country and a few *bidi* manufacturers from the Central Provinces have opened their distributing depots at centres located in important consuming areas. These distributing depots usually supply goods to their respective agents and sub-agents within their jurisdiction. Direct sale to consumers is not made by these depots but goods may be supplied to retailers when agents and sub-agents do not exist.



Weighing tobacco in Guntur.



Weighing tobacco in Guntur.



A country tobacconist's shop retailing chewing and smoking tobaccos.



Weighing tobacco in villages in the *Charotar* area of Bombay Presidency.

(b) *Distribution through agents and sub-agents.*—All cigarette factories and a few *bidi* manufacturers from the Central Provinces, Madras and Bombay appoint agents to serve specified areas. In the case of leading cigarette manufacturers, the agents are generally given sole rights of distributing particular brands of cigarettes. When sole-agents are appointed, the manufacturer does not supply the goods direct to the retailers or other wholesalers. In case the area allotted to an agent is large, sub-agents are appointed on the recommendations of agents, but the sub-agents are usually supplied with goods by or through the agents.

For their services the agents and sub-agents get commission from the manufacturers. The rates of commission vary from one manufacturer to another and in accordance with the brand of cigarettes sold. The rate of commission is lower for low grade than for high-grade cigarettes, and generally varies from 2 to 10 per cent. of the gross value of the cigarettes supplied to the agent. In the case of new brands of cigarettes put on the market and new cigarette factories, the rates of commission are usually high and may range from 10 to 20 per cent. The agents and sub-agents are supplied cigarettes f. o. r. to the nearest railway station and charges on account of handling and transport from the station to the agent's godown are usually borne by the agent himself. Very often the manufacturers themselves defray the charges on account of octroi and terminal charges, if any. Some manufacturers allow their agents to return the stock of unsold cigarettes and empty packing cases for which refund is given on rates varying from 4 annas to one rupee per case. All cigarette manufacturers usually prefer to make sales to their agents in cash, but generally credit is allowed for a period ranging from a week to a month. Usually it is the condition put by the manufacturer that the agent or sub-agent shall not deal with cigarettes manufactured by other companies. Nearly half the commission allowed to the agent is passed by him to the sub-agents and retail dealers. The agents and sub-agents usually have instructions to ask the retail dealers to sell the cigarettes only at standard retail prices.

The distribution of cigars, cheroots and pipe and cut tobaccos is done in a similar manner.

The manufacturers of *bidis* allow a commission ranging from Re. 1 to Rs. 2 per bag containing about 40 thousand *bidis*.

In the case of other tobacco products, viz., *hookah*, chewing and snuff, there is generally no system of appointing wholesale or distributing agents.

(c) *Distribution through travelling inspectors.*—All the important cigarette manufacturers and a few cigars and *bidi* manufacturers appoint travelling representatives or inspectors who go from place to place advertising their respective goods and canvassing for orders. In case the travelling inspector enters an area normally served by an appointed agent, he is to work in consultation with the agent. The inspector goes from place to place and on receipt of

orders passes them to the respective agent or direct to the factory if there is no appointed agent for the area in which he has secured orders.

(d) *Direct sale to retailers and consumers.*—Direct sales to retailers and consumers are only done by the manufacturers of *bidis*, *hookah*, chewing and snuff and to some extent by cigar and cheroot manufacturers. Bulk of the *bidis* manufactured in the country are sold direct to the consumers by the manufacturers. All over the country, practically every shop retailing *bidis* is a manufacturing centre and the shopkeeper himself manufactures a fairly large quantity of *bidis*, either by himself or by engaging hired labour. These *bidis* are retailed direct to consumers.

Similar is the case with regard to *hookah* and chewing tobaccos. All over northern India where *hookah* is manufactured in large quantities, the manufacturers themselves retail their products. Some of the bigger manufacturers, particularly from the United Provinces and Delhi, also sell their *hookah* tobacco at wholesale rates to retail dealers. The wholesale price is usually about 20 to 30 per cent. lower than the retail rates.

Bulk of the manufactured chewing tobacco is sold by manufacturers to retailers, very small quantity being sold direct to consumers. The prices charged to consumers by retailers are usually about $12\frac{1}{2}$ to 25 per cent. higher than the wholesale rates. Similar is the method of distribution of snuff. The manufacturers of Madras give a commission of $12\frac{1}{2}$ per cent. to retailers on their wholesale prices. In the Punjab a few snuff manufacturers appoint travelling agents who distribute snuff to retailers for which they get a commission of about $6\frac{1}{4}$ per cent.

(2) RETAIL TRADE.

The dealers who retail tobacco products are usually *panwallas*, provision and oilman stores, hotels and restaurants and tobacconists (see plate facing page 343). Specialised tobacconists' shops dealing in cigarettes, cigars, pipe and cut tobaccos, etc., are only found in big cities like Bombay, Madras, Calcutta, Delhi, Lahore, etc. Bulk of the retail distribution is done by *panwallas* and provision and oilman's stores.

Cigarettes are sold to consumers either in cartons of 10's or in tins of 50's. The *panwallas* also retail cigarettes by numbers as one or two per pice. *Bidis* are retailed either per bundle of 25 *bidis* or per count for a pice. Cigars and cheroots are retailed by boxes or packets, but in Madras and Burma, the local cheroots are retailed either in bundles of 25 or by count per unit of value, e.g., one anna or one pice. Pipe and cut tobaccos are invariably retailed in sealed tins by provision stores and tobacconists.

Manufactured *hookah* tobacco is retailed by weight of a seer or fraction of a seer. Manufactured chewing tobaccos are also retailed by weight but in the case of high-grade chewing tobaccos, the unit of retail sale may be as low as one tola or $1/80$ th of a seer. Snuff is

retailed either in small packets of the value of one pice or more or in small packed glass bottles or phials.

F.—Octroi, terminal and other local taxes.

Municipalities, Notified Area Committees and District Boards very often levy taxes which usually take the form of octroi duty or toll or terminal charges. There is no uniformity in the scales of octroi and terminal charges and as such they vary considerably from one place to another. The charges may be recovered on the basis of value or weight of goods. Sometimes the rate of charge is also based on count, particularly in the case of cigarettes and cigars. In some cases, the weight of packing material is included in assessing the tax while in others only the net weight is taken into account in arriving at the tax.

In some cases refunds are allowed on re-exported goods while in others no such concession is granted. Besides, different municipalities and local authorities have different conditions attached to claims for refunds.

The imposition of octroi, terminal and other charges by municipalities and other local authorities hampers the development of trade in many places, increases distribution costs and penalises the local merchants to the advantage of dealers elsewhere where such taxes are lower or do not exist. The actual charges under this head vary from 1 anna to Rs. 5 per maund of cigarettes, 8 annas to Rs. 5 per maund of cigars and cheroots, 1½ annas to Rs. 3 per maund of *bidis*, 1 anna to 10 annas per maund of unmanufactured tobacco, ½ to 8 annas per maund of *hookah* tobacco, ½ to 12 annas per maund of chewing tobacco and 1 anna to Rs. 1-8-0 per maund of snuff. An extreme example is that of the town of Bombay where the tax (known as tobacco duty) is as high as Rs. 30 per maund on all tobacco and its products, the duty on tobacco products being levied on the basis of tobacco contents.

Even within short distances in the same province these charges vary. For example, while at Cawnpore cigarettes are charged at 8 annas per maund, the charges collected at Lucknow come to Rs. 5 per maund. Some municipalities make distinction between Indian and foreign goods. Thus at Lahore, foreign cigarettes are charged at Rs. 3-8-0 per maund as against Rs. 1-8-0 per maund levied on Indian-made cigarettes.

No octroi, toll or terminal charges are reported to be levied in Madras, Bengal and Bihar. In Bombay, the highest charges are levied in the town of Bombay at Rs. 30 per maund. At other places in the Presidency the charge ranges from 1 anna to 8 annas per maund of unmanufactured tobacco, 4 annas to Rs. 3 per maund of *bidis* and 1 anna to Re. 1 per maund of cigarettes, cigars and cheroots. Some municipalities levy an *ad valorem* charge of half an anna per rupee worth of cigarettes, cigars and cheroots.

In the United Provinces, most of the municipalities charge either the octroi duty or toll tax on tobacco and tobacco products. The rate

on cigarettes, cigars and cheroots may range from 8 annas to Rs. 5 per maund while that on unmanufactured tobacco may vary from 9 pies to 8 annas per maund. *Bidis* may be charged at $1\frac{1}{2}$ annas to Re. 1 per maund while the same rate is levied on chewing tobaccos.

In the Punjab, the tax ranges from 1 anna to 8 annas per maund of unmanufactured tobacco, 2 annas to Rs. 4 per maund of cigarettes, cigars and cheroots and 1 anna to Rs. 2-8-0 per maund of *bidis*. In Delhi, the rate of terminal charge is 8 annas per maund on foreign tobacco of all kinds including Indian and foreign cigarettes, cigars and cheroots, 2 annas per maund on Indian unmanufactured tobacco of all sorts and 6 pies per maund of tobacco dust.

In Mysore, octroi charges are levied by all municipalities. The rate ranges from Re. 1 to Rs. 3 per maund of 24 lb. of unmanufactured tobacco, 6 pies to 2 annas per 1,000 *bidis*, 1 anna to 4 annas per 1,000 cigarettes and 5 annas per pound of snuff. Besides, every loaded cart entering the municipal limits has to pay toll charges and the rate is 4 annas per cart drawn by two bullocks and 2 annas for single bullock cart. At Petlad in Baroda State where there is an extensive trade in *bidi* tobacco, the local municipality levies both the toll and octroi charges. The rate of toll charge is 2 annas per cart load and that of octroi varies from 2 annas to 4 annas per local maund of 40 lb. In Cochin, only toll charges are collected at the rate of 4 annas per cart load. At Pudukkottai, every cart load of tobacco has to pay a frontier toll of 4 annas besides the municipal tax of another 4 annas per cart. In Kashmir, octroi charges at Rs. 2 per maund are imposed for all tobaccos entering municipal limits. Most of the Indian States in Rajputana and Central India levy import and export duties on tobacco and tobacco products, at rates ranging from 8 annas to Rs. 2 per maund.

G.—Licensing and control of tobacco trade.

Among the Indian provinces, only Bombay and Sind have got a system of licensing all tobacco traders. Majority of the Indian States levy import and export duties on tobacco and tobacco products and some States like Cochin and Patiala have adopted a system of auctioning out the rights to trade in tobacco and tobacco products. In Travancore, apart from heavy import duties, all tobacco dealers are licensed.

In Burma, no restrictions exist in regard to trade and manufacture of tobacco.

It may be stated at the outset that the system of licensing and other methods of control existing in certain Indian provinces and States aims entirely at the collection of revenue and no attempts have so far been made to control with a view to develop trade. In many countries of the world (*e.g.*, Japan, France, Italy, Spain, etc.), Governments themselves are now controlling some or all the stages of the tobacco trade and industry. Tobacco industry is one of the few which has suffered practically no set-back during the recent

depression period and many Governments in Europe and America consider it extremely important to improve and develop their tobacco trade as it forms an important source of revenue. In this connection it may be mentioned that in the United Kingdom tobacco produces more revenue than any other item of the Customs and Excise Tariff, having displaced beer in this respect after the reduction of beer duty in 1933. In 1936 the net amount of duty collected on tobacco was nearly 75 million pounds sterling. Even in the United States of America, the home of the world's commercial tobacco types, tobacco ranks second among the sources of internal revenue and third among all sources of ordinary revenue. Over 440 million dollars are collected annually.

(1) BOMBAY.

In Bombay City, a duty on tobacco is levied under the Tobacco Duty (Town of Bombay) Act of 1857 at a uniform rate of Rs. 30 per maund on all tobacco and its products, as already noted in the preceding section. In addition, all tobacco dealers are charged a small licence fee. The Act was amended early in 1938 to permit an increase in licence fees and according to the rules recently framed under the amended Act, an annual fee of Rs. 2 for a licence to sell superior tobacco by retail, to persons holding licences for sale of superior tobacco by retail and a fee of Rs. 48 to others are being charged from September 1, 1938. In the case of inferior tobacco, the licence fees are Re. 1 and Rs. 24 respectively. Combined licences for the sale of superior and inferior tobaccos to licence holders and non-licence-holders are also issued on payment of fees prescribed for such combined licences.

Superior tobacco is defined to consist of cigarettes, cigars and manufactured tobacco ready for rolling cigarettes, while all other types of tobacco and tobacco products are classed as inferior tobacco.

For a licence to sell at any fair, fete, dance or other entertainment, a fee of Re. 1 per day is charged, for every day on which such fair, fete, dance or entertainment is held, subject to a maximum of Rs. 25 in the case of licence to sell inferior tobacco and of Rs. 50 in the case of licence to sell superior tobacco.

The duty and licence fees levied in the town of Bombay on tobacco and tobacco products yielded in 1937-38 a revenue of about Rs. 17.63 lakhs which is expected to rise on account of the proposed increase in licence fees. The duty is collected by the Government of Bombay and till 1937-38, the net proceeds were paid to the Bombay Municipal Corporation and the Bombay Improvement Trust in a certain proportion. The Government have, however, now decided to appropriate from 1938-39, Rs. 5 lakhs from the proceeds of the duty.

In other parts of the Bombay Presidency, every dealer has to possess a licence for dealing in tobacco or its products, in accordance with the provisions laid down by the Bombay (District)

Tobacco Act of 1933, as amended in 1935. The schedule of licence fees was as under :—

Wholesale business ..	Rs. 15 per year.
Retail business or hawking ..	Rs. 2 per year in any case where the aggregate sale in any year does not exceed Rs. 200.
Licence for a broker ..	Rs. 2 per year.
Other cases ..	Re. 1 per cent. per year on the aggregate sale in any one year.

This tax prevailing all over the Presidency, except the Town of Bombay yielded a revenue of Rs. 2.33 lakhs in 1937-38 and is expected to give an additional revenue of about a lakh of rupees in consequence of the proposed increase in the rates of licence fees.

With this object, the Bombay (District) Tobacco Act was further amended in 1938 and in accordance with the rules framed under the provisions of the amended Act, the rates of licence fees have been raised from September 1, 1938. It is proposed that under the new rules, a person holding a licence for wholesale sale, shall, subject to a minimum of Rs. 2.8-0 and a maximum of Rs. 50, be assessed at the following rates :—

Annual aggregate sales.	Licence fee. Rs. A. P.
Less than Rs. 500 ..	2 8 0
Rs. 500 to Rs. 999 ..	5 0 0
Rs. 1,000 to Rs. 2,999 ..	10 0 0
Rs. 3,000 to Rs. 9,999 ..	20 0 0
Rs. 10,000 to Rs. 19,999 ..	40 0 0
Rs. 20,000 and over ..	50 0 0

For a brokers' licence, a fee of Rs. 2 per annum is charged, while the licence fees charged to retailers and hawkers are subject to a maximum of Rs. 50 in the case of superior tobacco and Rs. 25 for inferior tobacco, in any urban area, which the Government may, by notification published in the official gazette, specify. In other areas, Rs. 2 per year are to be charged for a retailer's or hawker's licence.

In accordance with the Sales-tax Rules framed under the amended Act, a sales-tax of $12\frac{1}{2}$ per cent. is to be levied on the wholesale or retail sale, or sale by a hawker of tobacco in the municipal areas of Bandra, Kurla, Vile Parle, Andheri and Ghatkopar and Ahmedabad City and Cantonment and Sholapur City.

(2) SIND.

Since Sind formed a part of the Bombay Presidency prior to April 1936, all the tobacco dealers in Sind were licensed under the provisions of the Bombay (District) Tobacco Act of 1932, as amended in 1935, till March 31, 1938. From this date the Bombay (District) Tobacco (Sind Amendment) Act, 1938 came into force and the annual licence fees were raised to Rs. 50 for wholesale trade,

the fees charged to retailers ranging from Rs. 2 to Rs. 4 per year. The licence fee for a broker remains unchanged at Rs. 2 per annum.

(3) TRAVANCORE.

The tobacco trade in Travancore State is controlled by levying import duties and licensing of dealers in tobacco. The import duty on unmanufactured tobacco imported from Jaffna in Ceylon is as high as Rs. 135 per *candy* of 600 lb. On cigarettes an import duty of 20 per cent. is charged while on cigars the rate of duty is 12 per cent.; on other types of tobacco and tobacco products the rate of duty is 8 per cent. The annual revenue realised on account of import duties ranges from 27 to 29 lakhs of rupees.

In 1935-36 about 800 wholesale licences and over 12,000 retail licences were issued for the sale of tobacco and tobacco products in Travancore State. The wholesale dealers pay to the Government a licence fee of Rs. 10 per annum while retail merchants are not permitted to have any stock more than 10 lb. of tobacco and cannot sell more than 1 lb. at a time.

(4) COCHIN.

In Cochin State the right of importing and selling tobacco is a state monopoly and is auctioned to a number of shopkeepers once in two years. There are two kinds of shops. A-shops which are 20 in number and which have the right of importing and selling wholesale, and B-shops which can sell only in retail to consumers and which number 875.

Each shop is so located as to serve a definite area, varying from half to four square miles. There is, however, no restriction on selling and an A-shop can sell to any B-shop in the State and any B-shopkeeper can sell to any consumer. The shops are leased out to the highest bidders at the time of auction. The annual yield of revenue to the State is in the neighbourhood of 3·4 lakhs of rupees.

(5) PATAIALA.

Tobacco is a licensed article in Patiala State and only authorised persons can sell it. Each year contracts are auctioned by open bids and the highest bidder gets the licence for its sale. There are over 1,400 contractors dealing in tobacco throughout the State and the annual revenue derived by the State is about 1·7 lakhs of rupees.

Except in Patiala proper, where the selling rates of tobacco and its products are fixed by the State Excise Department, there is no control over the prices charged to consumers by the licensed contractors.

H.—Manufacturers' associations.

There are at present no associations of manufacturers in any part of the country. In 1935 attempts were made to start an Indian Cigarette and Tobacco Manufacturers' Association but no success could be achieved apparently on account of severe competition among the manufacturers themselves.

[*Manufacture and distribution of tobacco products.*

INTER-CHAPTER TEN.

The total wholesale value of all tobacco products is estimated at about 37 crores of rupees. This includes manufactured products such as cigarettes, etc., and unmanufactured tobacco consumed in its raw condition, as in the case of *hookah* and chewing tobaccos. Adding at a moderate estimate, 25 per cent. on account of transport and distribution charges, the total value of the tobacco trade can be safely estimated at over 46 crores of rupees per annum.

There has been a rapid rise in the manufacture of cigarettes during the past 15 years. In 1923 there were only 11 cigarette factories employing on an average about 5,000 persons per day. In 1935, the number of cigarette factories increased to 22 of which four employed on an average 4,600 persons per day, while the remaining 18 were employing about 3,400 persons daily. The annual production of cigarettes in India is estimated at about 7,500 million cigarettes valued at nearly six crores of rupees. The Tobacco Manufacturers (India) Ltd., and the Cigarette Manufacturers (India) Ltd. are estimated to produce three-fourths of the total annual cigarette production. The selling organisation of these two companies, *viz.*, the Imperial Tobacco Company of India Ltd., handles 75 per cent. of the total trade of cigarettes in India; including imported goods. Cigarette factories are spread all over India, but the more important ones are located at Bangalore, Monghyr, Saharanpur, Calcutta, Bombay, Sukkur and Hyderabad (Deccan).

Cigars are made almost entirely at Dindigul, Trichinopoly and Madras. The trade and hence the volume of manufacture of cigars is steadily declining. At present about half a million lb. of tobacco is used in

the manufacture of cigars annually and the number of cigars manufactured is estimated at about 30 millions valued at about 15 lakhs of rupees.

The manufacture of cheroots is confined almost entirely to the Madras Presidency and Burma. Cheroot making is practised as a cottage industry all over the Madras Presidency and parts of Mysore and the Nizam's Dominions. The annual average output of cheroots in India is estimated at 90 to 92 million lb. or about 18,500 million cheroots valued at over 9 crores of rupees.

In Burma, cheroot rolling is essentially a small local industry, women who are rollers with some degree of skill, being found in almost all towns and in most of the tobacco producing villages. The work is generally done and the business managed by women. On an average, about a thousand million strong cheroots using about 24 million lb. of tobacco are annually manufactured in Burma. In addition, a little over 6,000 million mild or torch cheroots, for which about 58 million lb. of tobacco is used, are produced annually. The value of the annual production of strong and mild cheroots is estimated at 8.7 crores of rupees.

There is practically no area in India where *bidis* are not manufactured to some extent. Over 75,000 million *bidis* are annually manufactured in the country using about 70 million lb. of tobacco. The total value of the manufacture is estimated at 7.5 crores of rupees. Almost one-fourth of the total production is concentrated in the Central Provinces which hold a dominant place in the inter-provincial trade in *bidis*. Madras and Bombay together contribute about 40 per cent. to the total *bidi* production in the country, while the remaining production is distributed over the remaining part of the country.

The manufacture and consumption of *hookah* tobacco is almost entirely confined to the northern provinces, *viz.*, the North-West Frontier Province, Punjab, Delhi, United Provinces, Bihar, Bengal, Assam and parts of Rajputana, and Central India. The annual production of *hookah* tobacco in the country is estimated at over 1,300 million lb. valued at about 9.6 crores of rupees. Almost two-fifths of the production is confined to the United Provinces.

The United Provinces and Delhi are the most important areas for the manufacture of chewing tobacco and account for almost 90 per cent. of the total quantity of chewing tobacco manufactured in the country. Over 156 million lb. of chewing tobacco leaf valued at a little over 3 crores of rupees is annually consumed more than four-fifths being consumed in raw condition, *i.e.*, without any process of manufacture.

Snuff is manufactured in several provinces and Indian States but the most important areas appear to be Madras, the Punjab and the North-West Frontier Province. The annual production in the country is estimated at 21.7 million lb. valued at about a crore and a half of rupees.

No adulteration is generally done in the manufacture of cigarettes, cigars and cheroots except the "flavourings" used by certain manufacturers. The composition of "flavourings" is considered secret and hence it would be difficult to indicate the nature of the "flavourings" used by certain manufacturers without further detailed investigation. It may be stated that in the United Kingdom, the addition of solid matters and even the use of glycerine and diethylene glycol is prohibited in products meant for home consumption; though the use of essential oils for the purpose of flavouring any tobacco product and of olive oil and sweetening matter in the case of smoking tobacco is permissible. In the

manufacture of *bidis* no adulteration of tobacco is generally done, but a case was noticed in the Madras Presidency where finely cut *bidi* wrapper leaf was mixed with *bidi* tobacco before manufacturing *bidis* in the ordinary way. This is definitely an attempt to sell to consumers as tobacco something which is not tobacco. Possibly the largest adulteration takes place in the manufacture of *hookah* tobacco where large quantities of fine sand, earth, quick lime, *reh* or carbonate of soda, cotton waste, dried and powdered leaves of trees, etc., are used to mix with tobacco. The general quality of *hookah* tobacco available in the market is considered to be inferior on account of adulteration and many *hookah* smokers prefer to prepare their own *hookah* tobacco. Similarly many of the people in the habit of chewing tobacco prefer to have pure leaf and being unaware of the contents of the manufactured chewing tobacco, refrain from using it. If the manufacturers standardise their *hookah* and chewing tobaccos, adopt registered trade-marks and certify and publish the actual constituents of their products, there seems to be a possibility of increasing to some extent the internal demand for manufactured *hookah* and chewing tobaccos.

There is severe competition among manufacturers, particularly those of cigarettes, cigars, cheroots and *bidis*. Trade marks and other distinguishing marks are frequently copied, while wholesale and retail distributors are offered by manufacturers all sorts of attractive terms to push the sale of their respective products. These defects should be remedied by the better organisation of manufacturers to regulate output and distribution and by making a more comprehensive legal provision for the registration of trade marks. It is understood that the Government of India propose to undertake the necessary legislation in the near future.

There is a complete absence of periodical variation in the prices of any tobacco product, excepting possibly

in the case of new brands put on the market by new manufacturing concerns. Even year to year variation is rare, particularly in the retail prices charged to consumers, though some manufacturers occasionally make a slight reduction in wholesale prices of some of their brands whenever there is competition from similar products of other companies. Usually there is no apparent relation between the prices of tobacco products and those of unmanufactured tobacco.

The imposition of octroi, terminal and other charges by municipalities and other local authorities hampers the development of trade in many places, increases distribution costs and penalises the local merchants and manufacturers to the advantage of the others elsewhere where such taxes are lower or do not exist. An extreme example is that of the town of Bombay where the tax (known as tobacco duty) is as high as Rs. 30 per maund on all tobacco and its products, the duty on tobacco products being levied on the basis of tobacco contents. At many other towns and cities, the rates of octroi and terminal charges vary from 1 anna to Rs. 5 per maund of cigarettes, 8 annas to Rs. 5 per maund of cigars and cheroots, 1½ anna to Rs. 3 per maund of *bidis*, 1 anna to 10 annas per maund of unmanufactured tobacco, ½ to 8 annas per maund of *hookah* tobacco, ½ to 12 annas per maund of chewing tobacco and 1 anna to Rs. 1-8-0 per maund of snuff. The hampering effects of these taxes on the development of trade in agricultural products can hardly be over-estimated and it is suggested that the local authorities concerned should take steps to remove these disabilities.

Bombay and Sind have adopted a system of charging licence fees to all tobacco traders. The majority of the Indian States levy import and export duties on tobacco and its products and some States like Cochin and Patiala follow the system of auctioning out the rights

to trade in tobacco and tobacco products. In Travancore, apart from heavy import duties, all tobacco dealers are licensed. The system of licensing and other methods of control adopted in Bombay, Sind and some Indian States aims entirely at the collection of revenue and no attempts have so far been made to exercise control with a view to developing the trade on proper lines. In several other countries, *e.g.*, Japan, France, Italy, Spain, etc., the Governments themselves are now managing some or all the stages of the industry and trade. The tobacco industry is one of the few which has suffered practically no setback during the recent depression period and many Governments in Europe and America consider it extremely important to improve and develop their tobacco trade as it forms an important source of revenue. If tobacco in India is ever to constitute a permanent source of revenue it would be a mistake to neglect to take suitable measures to improve and develop its production, trade and manufacture. The need for uniformity of taxation and for concerted and co-ordinated action by all concerned should be carefully considered.

CHAPTER XI.—MISCELLANEOUS.

A.—Weights and measures and units of sale.

(1) CURRENT WEIGHTS AND UNITS OF SALE.

Unmanufactured tobacco is almost invariably sold by weight and never by measure. The system of weights adopted in different parts of the country, is most complicated and, in many cases, incomprehensible. Very often the weights for buying and selling are different and the weight of a maund while buying tobacco from the growers is different and higher than the weight of a maund used by merchants while selling. In some areas, e.g., Bengal, Bihar and the United Provinces, the village weights are very largely of stones and bricks, stamped iron weights being extremely rare. In some parts like the North Bihar, stones are not easily available and stone weights once made may be used for a generation.

In the *North Bengal* area, the weights used vary even from one area to another of the same district. In Rangpur district, for example, a seer may be equal to anything from 60 to 93 tolas. A maund ranges between 40 and 51 seers. The weight of a *kalachandi* maund in this district is as much as 21,600 tolas or 270 standard seers of 80 tolas. In accordance with the provisions of the Bombay Weights and Measures Act, the weights used in the *Charotar* and *Nipani* areas are now standardised. At Sangli and Jayasingpur the unit of weight is an *atki* of about 224 lb. In the *Guntur* area, farm-cured leaf is sold in terms of a candy of 500 lb., while in other areas of the Madras Presidency there are several other units of sales as *pothi*, *bharam*, *thulam*, *putty*, maund, *viss*, etc. In the *North Bihar* area, the unit of sale is a maund, but its weight varies from place to place even in the same district. In Patna district alone, where there are about a dozen systems of weights, the weight of a seer may be anything from 44 to 88 tolas. In the *United Provinces*, a maund of tobacco weighs 55 seers at Farrukhabad, 48½ seers at Cawnpore and 46 seers at Benares. Similar variations are observed in the *Punjab* where the weight of a seer may be as low as 32 tolas and as high as 100 tolas. In the *North-West Frontier Province*, each district in the province has its own local seer of different denominations (in tolas). In Peshawar a seer is equal to 105 tolas. A *Peshawari* maund weighs about 108 lb.

In the *Mysore State*, the unit of sale is the local maund. Its weight is not, however, the same throughout the State. At Ravandur a maund is 32 lb., at Sira $28\frac{4}{5}$ lb., while at Alur it is $26\frac{2}{5}$ lb. There is a weights and measures regulation in force in the Mysore State which defines the local standard maund of 40 seers of 24 tolas each and also enforces the compulsory use of the local standard weights and measures in the important trade centres of the State. The important tobacco markets, however, are not included in the list of places where the use of the local standards is enforced. In the *Baroda State* the normal weight of a local maund is 40 lb., but in the sale of grower's tobacco, the weight of a maund which varies from village to village, may be anywhere between 42 and 47 lb.

The unit of sale in *Burma* is the *viss* of 3·6 lb.

(2) SCALES.

Large beam scales are used in the wholesale trade while hand scales are used for weighing smaller quantities. Except in the *Guntur* area, standard scales, like the Avery's balances, are very rarely used by merchants at the time of buying unmanufactured tobacco from the growers. Platform balances and weighing machines are almost exclusively used by cigarette tobacco leaf buyers in the *Guntur* area (see plate facing page 342). An ordinary beam balance used in villages and markets consists of an iron beam, at the two ends of which are hung by means of stout iron chains or ropes, the pans made of wood or bamboo strips or cane or occasionally of iron. Sometimes there is only one pan on which a bundle or bag of tobacco is put, the weights being hung on the other side (see plate facing page 342). In some villages, e.g., those in *North Bihar*, the scale used is made of an ordinary wooden beam with the weighing pans hung by means of strong ropes at its two ends. A hole is bored in the centre of the beam through which a string is passed and this acts as a fulcrum. Sometimes there may be more than one hole in the beam so that the position of the fulcrum can be changed, if it can be done without being noticed by the aggrieved party. The string in the fulcrum is sometimes made to fit so tight and stiff that the quantity weighed can be easily manipulated. On account of multiplicity of weights and the use of any kind of scale, the grower is, in many cases, at the mercy of the weighman who, more often than not, favours the buyer at the cost of grower.

In *Burma*, the scales used in villages are the ordinary wooden beam scales which the growers or sellers can check against the scales which they believe to be accurate in their own houses or in the shops of local dealers. In markets like Rangoon, platform balances are more commonly used.

(3) STANDARDISATION.

The chaotic state of the systems of weights and measures adopted in different parts of the country, has already been described in the other reports of the marketing series. It also stands in the way of development of market intelligence service and trade. The existing conditions further provide a good scope for exploiting the illiterate and the ignorant grower-sellers and there has been practically no effective organisation, excepting possibly lately in the Bombay Presidency, to check the fraudulent practices by the intermediaries of manipulating weights and scales. Several municipal authorities and district boards in the country have adopted the model bye-laws framed by their local Governments to prescribe the use of standard weights and measures, but most of them have failed to put them into practice effectively. Besides, there has been no regular and effective inspection service outside the Bombay Presidency.

The question of standardisation of weights and measures on an all-India basis has engaged the attention of the Government of India for over a hundred years, but so far no standard weights and

measures have been established for the whole country. The only statute of the Government of India on the subject appears to be the Act XXXI of 1871 which made the kilogramme of the metric system the standard seer of India. This Act, however, has remained a dead letter. Soon after the enactment of this statute, the Government of India passed a resolution in 1875, stipulating that the Indian maund of 40 seers (1 seer being equal to 80 tolas), should be the standard in use on all guaranteed and State Railways and in the collection of agricultural and price statistics. In 1913 a committee was set up to re-examine the question. The committee reported in 1914, recommending the adoption of the same standards which they called Indian Railways Weights based on a maund of 40 seers, a seer of 80 tolas, and a tola being 180 grains, equal to the weight of a rupee. Immediately afterwards, however, the War intervened and no action could be taken on the committee's report on an all-India basis.

Since then it is only the Government of Bombay which have enacted a comprehensive legislation called the Bombay Weights and Measures Act of 1932 which has been applied to the whole of the Bombay Presidency from March 1936. According to the Bombay Act, a tola consists of 180 grains, 80 tolas making one seer. The maund equals 40 seers, and 3 maunds make a Bombay *Map*. Similarly, standards have been prescribed for measures. Weights and measures laboratories have been set up to verify and check these weights and measures. The Act is administered by the Director of Industries, assisted by an extensive inspection staff throughout the province. It is, however, understood that the old weights and measures which were being used before the introduction of the standards, have not yet been withdrawn and it is likely that they are still being used in some places, particularly in the remote rural areas. Similarly, it is understood that both the pound and seer continue to be used so that merchants may use the pound weight for selling and seer weight for buying. An ordinary buyer believes that a seer is equivalent to 2 lb., but it actually weighs 2.057 lb.

Under the new constitution, weights and measures is a provincial subject, but the establishment of standards of weight is central. The tola, seer and maund are the most widely used in the country, the tola being commonly understood to be equivalent to the weight of a new rupee (180 grains Troy). The weights used on all the railways are the maund and seer, each seer weighing 80 tolas and a maund consisting of 40 seers. Since these weights are the ones mostly widely known, it is suggested that the following standard weights should be adopted for India :—

Weight of a rupee (180 grains Troy)	..	=	1 Tola.
80 Tolas	..	..	= 1 Seer.
40 Seers	..	..	= 1 Maund.

These standards would correspond to the standard weights adopted in Bombay and cause the least dislocation of the existing systems followed in the several areas. Once these were standardised,

local Governments could introduce in addition, such multiples or sub-multiples of these weights as might be desirable to fit in with other local weights in common use. It is also suggested that the Provincial and State Governments might give some attention to the question of the scales employed for wholesale and retail trade. The Government of India have decided to introduce central legislation for standardising weights, and Provincial Governments will then be in a better position to take active steps to put the standard weights into operation.

B.—Research.

(1) CIGARETTE TOBACCO.

India is one of the largest tobacco producing countries of the world, but by far the larger part of her production is suited to the needs of the local market. The quality in demand for local consumption has not been suitable for export to and consumption in European markets where there has been a rising demand for the cigarette leaf, largely of the flue-cured type. With a view to increase the foreign trade of India in this commodity and improve the economic position of the tobacco grower, it is natural that attention of tobacco research institutions in the country has been largely concentrated on the production of cigarette-tobacco suitable for export and manufacture of cigarettes within the country.

The earliest (1920-25) attempts to produce cigarette leaf on a commercial scale were made in the Guntur district by the Indian Leaf Tobacco Development Company, Limited, which introduced several exotic varieties from the United States of America among which the most successful was the *Adcock* variety. This tobacco was cured on racks but the colour obtained fell short of that which is desirable in a good cigarette leaf. Flue-curing experiments were conducted at Pusa in Bihar during 1925-27, which established the superiority of this process in getting a bright lemon yellow colour from the *Adcock* variety.

In 1924, at Pusa, *Adcock* was crossed with Pusa Type 28, which was considered to be the best of the Pusa types for cigarette manufacture and one of the 52 types originally isolated by the *Howards*. A large number of hybrids were raised from this cross and of these, two numbers, H. 142 and H. 177 have proved to be heavier in yield and equal in quality to *Adcock*. Under conditions prevailing at Pusa, however, any cigarette tobacco grown in the area gives a distinct earthy flavour.

At the Nadiad tobacco farm in the *Charotar* area, experiments are being conducted in hybridisation and curing cigarette tobacco. The local *Gandiu* which is a high yielding variety with deficiency in quality, from the point of view of cigarette manufacture, was crossed with *Adcock* and one of the hybrids resulting from this cross is reported to be suitable for the manufacture of lower quality cigarettes. At the agricultural research station at Guntur, experiments are being conducted on cigarette tobacco with regard to hybridisation, selection, rotation and the effect of environmental factors on quality and flavour.

For close on twenty years, the Indian Leaf Tobacco Development Company has been carrying on experimental research work on cigarette leaf and advising growers in regard to crop rotations, cultivation, correct use of fertilisers, etc., particularly in the Guntur area.

Since 1936, the Imperial Council of Agricultural Research has taken up a scheme for co-ordinated research in the production of cigarette tobacco in co-operation with the Imperial Agricultural Research Institute and nine provinces and States. The scheme involves :

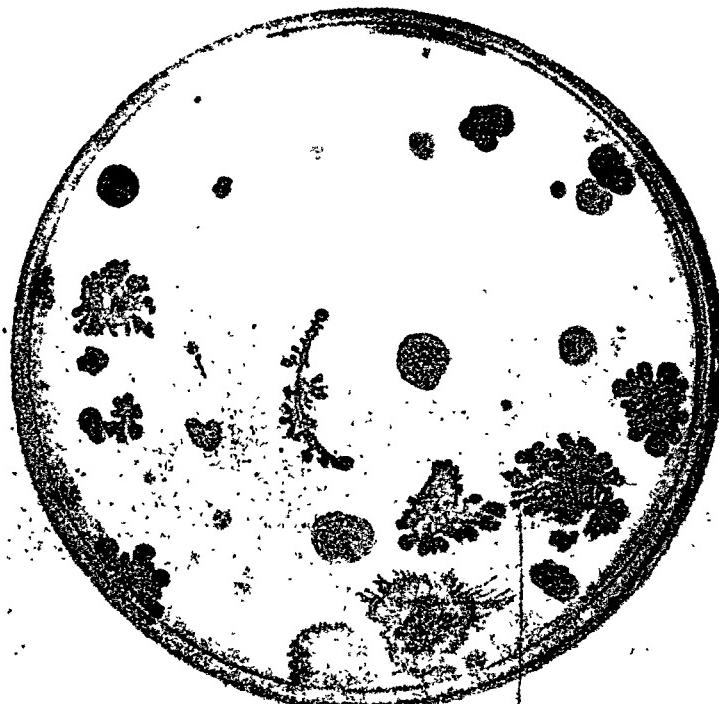
- (a) Determination of areas suitable for the production of cigarette tobacco, and
- (b) Detailed manurial, curing, chemical and breeding experiments and control of leaf curl disease at the Central Tobacco Research Station at Guntur under the control of the Imperial Agricultural Research Institute.

Each co-operating province and state has been provided with two flue-curing barns (in a few cases with only one) and the cured leaf obtained is subjected to tests by experts. The work at the Guntur station involves the study of the effect of different manures on the cured leaf, curing of leaf produced under different manurial and cultural conditions, chemical analysis of the leaf at different stages of curing and ageing, and the possibilities of the control of leaf curl disease. It is also intended to take up the work of breeding new types and experiments on the variations in the quality of leaf produced on different kinds of soil. The scheme is yet in its early stages of experimentation.

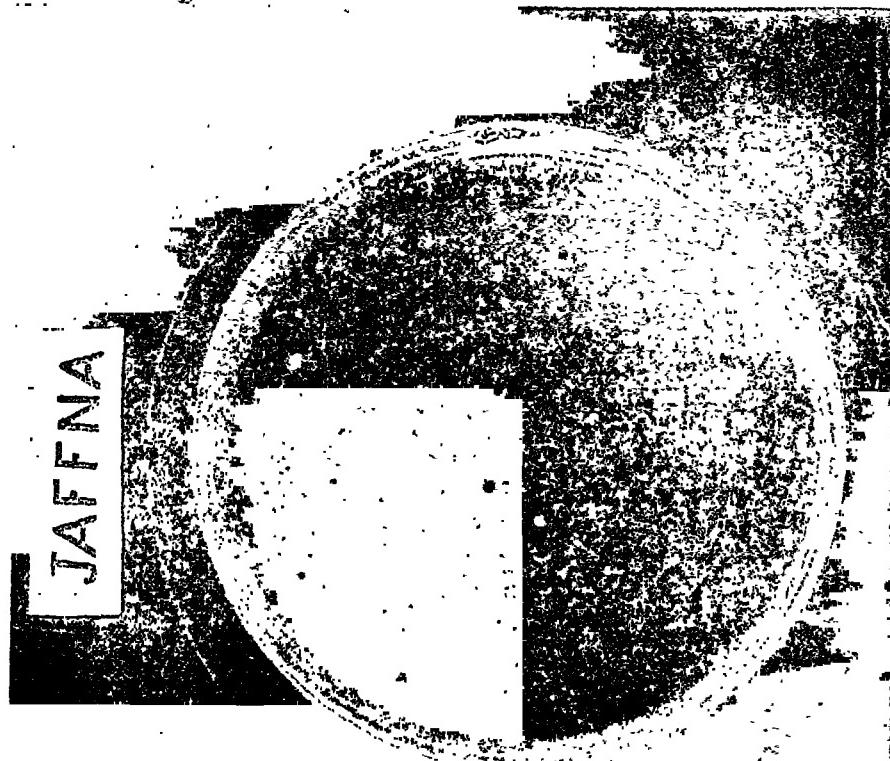
Of all the agricultural crops, the raising of a successful tobacco crop, particularly for cigarette manufacture, probably requires the largest amount of skill, knowledge and experience, and there is at present no official source in India from which the producers can obtain expert advice and guidance with regard to the production and manufacture of cigarette tobacco. Considering that during the past twelve years, the most dominant problem in the tobacco trade of the country is the production of leaf of a quality approaching that which is used in the manufacture of the popular brands of Virginian cigarettes here as well as abroad, it is considered desirable that the services of such an expert officer should be made available to the tobacco producers. The Imperial Council of Agricultural Research has now taken up this question and is sending three Indian officers abroad for the study of tobacco cultivation, curing and marketing.

It may further be suggested that in order to ensure and expand a market at home and abroad, any scheme for the expansion of the area under cigarette tobacco should be linked up with a system of standardised grades, so that cigarette manufacturers in India, and the leaf importing countries overseas, might be certain of a regular supply of a uniform quality. As a preliminary step to this, arrangements may have to be made by the Provincial and State Departments of Agriculture to educate the grower to grow only that

MEE NAPALAYAM

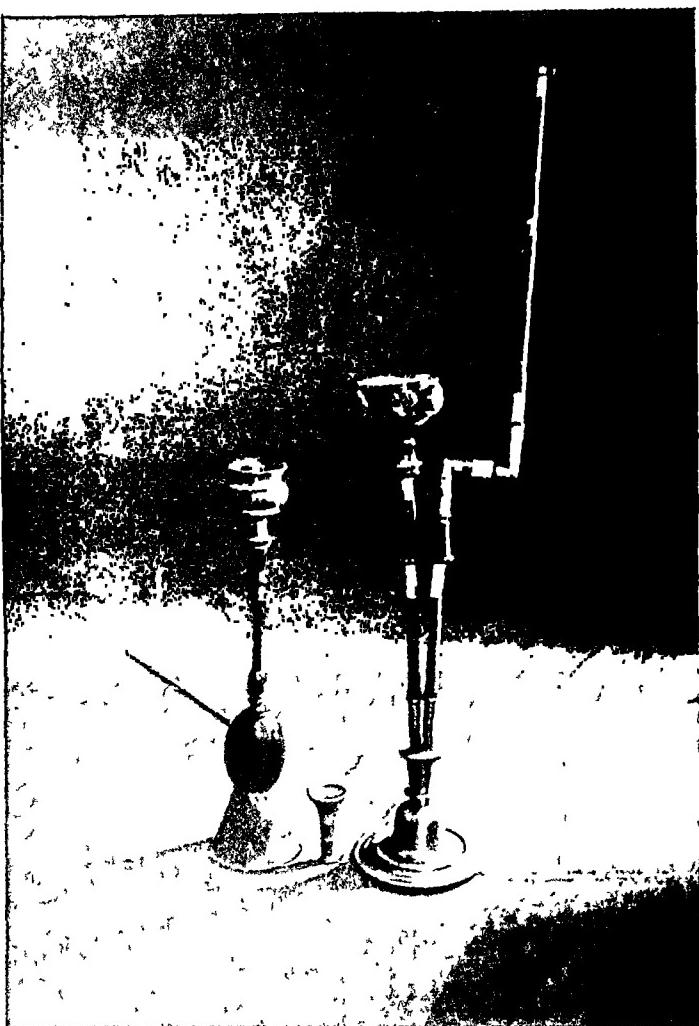


JAFFNA



Plates showing the types and number of colonies of micro-organisms which grew on tobacco extract agar when inoculated with *Jaffna* and *Mee Napalayam* tobaccos in a dilution of 1 in 200.

Facing page 361.]



Apparatus for smoking *hookah* tobacco.

(The one on the left is an ordinary *hookah* used by the poorer people. The tobacco is put in the bowl on the top and the smoke passes through water contained in the coconut shell at the bottom. The *hookah* on the right is more elaborate and expensive used by middle and upper class smokers. The small object between the two *hookahs* is the *Chilam*, an earthen pipe used for smoking raw tobacco.)

variety for which his area is found most suitable. The results of research should indicate the variety or varieties which would be most suited for different areas. It might then be necessary to control the purity of the variety through the distribution of seed and exercise control over the quality of the crop through advisory and propaganda work and growers' associations and by suitable legislation, where necessary, designed to foster the establishment of one variety areas.

(2) CIGAR AND CHEROOT TOBACCO.

India once possessed a flourishing cigar industry, and Indian cigars, in general, have probably been regarded as a cheap, medium, quality smoke. On account of the general decline in the popularity of cigars in favour of the cigarette, however, the importance of the industry has now considerably declined.

Some investigations have been carried out by the Bengal Department of Agriculture at Rangpur (North Bengal) and several imported types were tried for the production of cigar wrappers and fillers. Of these *Sumatra*, *Pennsylvania* and *Manilla* varieties have been found successful.

In countries where the production of fine cigar leaf is successful, cultivation is done on large plantations which are very carefully worked and supervised, even individual plants being attended to. At present this type of cultivation appears to be beyond the scope of Indian tobacco growers. The local demand for cigars and cheroots is adequately met with by the manufacturers established in Madras and Burma and it would probably continue to be advantageous to import the fine quality *Sumatra* wrapper for the manufacture of superior cigars for some time to come. Considering that the demand for cigars and cheroots is on the decline within the country and abroad, it appears that research in the production of cigar leaf offers a less promising field than in the production of cigarette leaf.

(3) INDIGENOUS TYPES OF TOBACCO.

The main problem of indigenous tobaccos used for *bidi*, *hookah*, chewing and snuff appears to be improvement in yield and quality. No work on these lines is being done for any of these types of tobacco, except at the Nadiad tobacco farm in the *Charotar* area. Extensive work was done in selection from the local varieties of *bidi* tobacco and three selections, G. 6 (from *Gandiu*), P. 45 (from *Piliu*) and P. 28 (also from *Piliu*), which have been isolated, are superior in yield, if not in quality. G. 6 has gained considerable popularity since it gives a higher yield, can withstand frost and involves less labour in its cultivation. It is reported that about fourth-fifths of the area under *bidi* tobacco in Kaira District of Bombay is now under the *Gandiu* and *Piliu* selections.

It is suggested that similar research might be undertaken in other areas, particularly in Southern Madras, *Nipani* area, *North Bihar* and *North Bengal*.

As already stated in the chapters on Supply and Grading and Standardisation, considerable quantities of *Jaffna* chewing tobacco

are annually imported from Ceylon to Travancore. In spite of its very high price, this tobacco has particular attraction for consumers in the Travancore and Cochin areas, because of its peculiar taste, though, in physical character, it appears to be similar to the *Meenampalayam* tobacco produced in the Coinbatore district. A micro-biological analysis of these two varieties indicates two distinct formations of colonies of organisms (see plate facing page 360) and it is possible that the peculiar taste possessed by the *Jaffna* tobacco is the result of the differences in the micro-organisms present in the cured leaf of these two varieties. It is, therefore, for consideration if the taste of *Meenampalayam* tobacco cannot be turned into that of *Jaffna* by transferring the organisms present in the cured leaf of *Jaffna* to that of *Meenampalayam*.

C.—Seed.

Except in the case of Virginia cigarette tobacco, there is no dependable source from where the growers can obtain their seed supplies. Even in the case of Virginia the only reliable source is the Indian Leaf Tobacco Development Company, Limited, operating in the *Guntur* area. The reputation of this area for a uniform type is almost entirely due to the distribution of seeds and seedlings by this company which maintains at Chirala, seedbeds covering about 75 acres almost entirely under the *Harrison's Special* variety. The seedlings raised from this are generally given by the company to growers who enter into contract with the company for the delivery of the cured leaf. Any excess of seeds and seedlings is supplied by the company to other parties demanding them. It is understood that fresh seed of Virginia imported from the United States of America deteriorates under conditions prevailing in India and that the company has to import fresh supplies of seed every third or fourth year. The problems of acclimatising the seed of Virginia tobacco under Indian conditions are therefore extremely important, and it is suggested that experiments might be undertaken in the principal cigarette tobacco producing areas, viz., *Guntur*, *Mysore* and *Saharanpur*. Bulk of the cigarette tobacco growers either raise their own seeds or obtain seeds and seedlings either from their neighbours or the local seed suppliers. Due to natural cross fertilisation and the fact that majority of the growers and local village seed suppliers do not know the scientific methods of raising tobacco seeds, the seed supplies available to the bulk of the growers are far from reliable. During the course of this survey; several exporters and growers from the *Guntur* area expressed that the quality of the *Guntur* crop has generally deteriorated during the past five years on account of the use of faulty seeds and seedlings by the growers, and that the question of supply of reliable seeds is of utmost importance to keep up and improve the reputation of *Guntur* area for the flue-cured leaf. One of the items of work taken up by the Indian Tobacco Association is the supply of reliable seeds and seedlings to Virginia tobacco growers about which enquiries are being made.

Almost the only variety of Virginia cigarette leaf grown in India is the *Harrison's Special* introduced by the Indian Leaf Tobacco Development Company by the importation of seed from

America. The word " Virginian " describes a type and does not mean tobacco leaf grown in Virginia alone. It has no place in the American system of tobacco classification where all cigarette leaf is classed as flue-cured. The bulk of the flue-cured leaf is grown in Carolina and Georgia, smaller quantities being produced in Virginia, Florida, Alabama and Mississippi. Enquiries made this year (1938) by the Central Marketing Staff from some of the seed suppliers of the Virginia Bright Belt of the United States, show that the *Harrison's Special* variety is not at all grown in America to any appreciable extent and that *Gold Dollar*, *Bonanza*, *Virginia Bright Leaf* and *Yellow Mammoth* are the most common varieties. Other varieties of cigarette leaf grown to a smaller extent are *Jamaica Wrapper*, *Cash* and *White Stem*. In fact it appears to be difficult even to get the seed of *Harrison's Special* which is reported by some of the American seed suppliers as too coarse to produce a fine type of cigarette leaf under American conditions. One of the Extension Tobacco Specialists of the United States Department of Agriculture who has had some experience of Indian conditions reports that the *Bonanza* variety is the nearest approach to the *Harrison's Special* and that it will be difficult to distinguish these two varieties under field conditions. He further says that *Gold Dollar* is by far the most popular variety grown in America, as it cures more easily than other varieties and produces leaf of a very fine texture and quality, and that it might also suit Indian conditions.

It will be therefore desirable to try, under conditions prevailing in the different cigarette tobacco producing areas of India, at least the seed of the *Bonanza* and *Gold Dollar* varieties.

Almost all the growers of indigenous varieties of tobacco produce their own seed for raising seedlings. They leave some plants untopped and the pods when mature are collected, dried and stored. In Bombay, the usual practice is to allow the ratoon crop to mature and bear seed. Owing to reasons such as heavy showers just after sowing seed, insect attack, disease, etc., a grower may fall short of seedlings at the time of planting. In such a case he generally procures seedlings from neighbours, friends or relations, usually free. Generally the growers are not very particular about the selection of plants for raising seed and this is possibly due to their belief that the quality of the leaf depends entirely on the nature of soil and cultivation.

It appears that only in the *Charotar* area, extensive efforts were made by the Bombay Department of Agriculture to distribute the seeds of improved selections, G. 6, P. 45 and P. 28 which are reported to cover about four-fifths of the *bidi* tobacco area in Kaira district. In Bihar attempts were made to distribute *Virginia* tobacco seeds of H. 142, H. 177, *Adcock* and *Harrison's Special*, but without any appreciable results.

D.—Trade associations.

Mention has already been made of the market operators' associations in Nipani, Sangli and Jayasingpur. These appear to be the only three places in the whole of India and Burma where there

exist trade associations organised by merchants in the tobacco trade. The Merchants' League established in 1919 at Nipani has fixed the units of sale, rates of commission, other miscellaneous charges and deductions in weight. Rates of discount for immediate payment and interest rates on overdues are also fixed, while the rules of the League stipulate that no member of the League may deal with any person who has not cleared his accounts with another member of the League. The Merchants' Association established in 1933 at Jaysingpur also works on similar lines as that at Nipani. The rules made by the Sangli Chamber of Commerce stipulate the time of opening and closing of the market place, the order and units of sales, conditions of sale, commission and other charges, deductions in weight and rates of discount and interest charges.

The Indian Tobacco Association at Guntur to which a reference has been made in the chapter on Classification, Grading and Standardisation, concerns itself mainly with the introduction of standard grades for cigarette leaf, and the issue of periodical bulletins and leaflets giving information on market intelligence, cultivation, curing and grading.

E.—Marketing of tobacco in other countries.

(1) PRODUCING COUNTRIES.

(a) *United States of America*.—About one-third of the total quantity of unmanufactured tobacco which enters into international trade is supplied by the United States of America. The United States trade in unmanufactured tobacco is highly organised. Statutory standard grades for all types of tobacco are prescribed. All warehouses and warehousemen are licensed and controlled under the "Regulations for Warehousemen Storing Tobacco" made by the Secretary of Agriculture under authority of the United States Warehouse Act. A tobacco inspection, market news and demonstration service has been established. The inspection service undertakes inspection and certification of the grade on tobacco, before sale, at auction markets. Packed tobacco is also inspected and the grade certified upon application by interested parties. Prior to 1936 a small fee was charged for this service which is now given free to growers. During the years 1931 to 1935, 108 to 186 million lb. of farmers' tobacco were sold annually under standard and certified grades at auction markets. Under the demonstration service, the tobacco growers are acquainted with the objects of the inspection and market news services and how these services can be best used. The market news service consists of issuing daily and weekly price reports prepared from the price data secured at the auction warehouses.

The marketing method most extensively followed is the *auction warehouse system* which prevails throughout the flue-cured, Burley, dark air-cured and fire-cured areas. Before bringing the tobacco to the auction warehouse market, the farmers sort the leaf on the farm according to quality and tie it into hands containing 5 to 20 leaves. On receipt at the warehouse, the leaf is arranged for sale on flat baskets placed in rows on the floors of the auction sales rooms. Each lot or basket is then weighed and a warehouse ticket

is placed on the lot. The ticket shows the name of the sellers and the number of pounds of tobacco in the lot, and may give other information for the purpose of identification. Space is provided on the ticket for the name of the buyer, the grade symbol of the buyer and the price at which the tobacco is sold. It also has space in the upper right hand corner for the United States' federal grades in markets where the Government inspection service exists. Immediately before the auction commences, an official inspector carefully examines the different lots and writes on the ticket in the space provided, the federal grade that correctly describes the tobacco in the lot and signs his initial. When the auction starts on each lot, the grade of the lot is announced for the information of all parties concerned. The auctioneer, followed by sales-recording clerks, passes rapidly from one lot to another. The buyers on either side of the row draw out hands of tobacco and inspect them for bidding. Sales are made at a rapid speed, usually about 300 lots per hour although sales of 350 to 400 lots per hour are not uncommon. Unless the grower refuses to accept the price offered, which he has the privilege of doing, the warehouse renders him the account of the tobacco sold and gives him a cheque for the price realised after deducting market expenses, like weighing, warehousing, sampling and selling commission. So efficiently are the accounting and disbursing operations organised, that the grower may, if he desires, obtain payment almost immediately after sale. The requirements of an auction warehouse are ample floor space on a single floor and uniformity of lighting.

Another method of marketing is the *closed-bid auction* system followed largely in the case of Maryland tobacco. Under this method the tobacco is first packed in hogsheads on the farms and then consigned to a broker or warehouse. Samples are taken from hogsheads, sealed and displayed by the broker or the commission merchant. Buyers make sealed bids on the basis of the samples displayed. All the bids are opened at the close of the day and the highest bidder receives the tobacco. This method of selling prevails only at Baltimore, the sole market for the southern Maryland tobacco.

The method of *selling on the farm* is predominant in the cigar tobacco producing areas. Travelling buyers either operating as independent dealers or representing tobacco manufacturers visit the tobacco growers and effect sales. Purchases may be made by entering into contracts with the growers at some time during the growing season or by negotiations after the tobacco is harvested and cured. Such transactions may be made at a flat price for all the grades or more commonly, at two prices ; one, for that portion of the crop which grades at or above the standard agreed upon and another for tobacco of lower quality.

Various attempts have been made in America to establish "pools" for *co-operative sale* by tobacco producers. The underlying principle of a co-operative tobacco marketing association is the banding together of growers so that it will be possible to set up a compact business organisation for receiving, pooling and grading tobacco produced by the member growers or for storing for sale at

a future date when marketing conditions become more favourable. There appear to be only five co-operative societies of importance at present in operation. The Northern Wisconsin Co-operative Tobacco Pool organised in 1922 and operating in a cigar leaf producing area has a little over 7,500 members. This organisation provides for federal grading of all tobacco received from its member growers through co-operation with the United States Department of Agriculture and Wisconsin Department of Farms and Markets. All packing and warehousing services are rendered by the association which also arranges for the sale of tobacco for its members. Producers are paid by pooling the receipts from the sale of each grade for the entire crop, each grower receiving the same price for tobacco of a given quality produced within the year. Large stocks are held by the association, sometimes for as long as two or three years and a financing plan has been developed whereby cash advances are given to the producers against stocks of tobacco. Three other co-operative marketing associations operate in Kentucky and Tennessee, mostly dealing with dark-fired tobaccos. The Maryland Tobacco Growers' Association organised in 1907 and having a membership of more than 5,000 growers functions substantially as co-operative brokerage agency on the Baltimore market. Some of these co-operative associations have helped to maintain prices in the open competitive markets, but where they have resulted in holding up supplies for a prolonged period, they have either failed or only achieved partial success. Where serious failures have resulted, they have usually been due to several causes of which three are important, viz., (i) all farmers not joining the movement, the buyers were able to satisfy much of their requirements outside the co-operative pool, so that the pool was left with large unsold stocks at the end of the season, (ii) no agreement could be reached among the growers to limit cultivation sufficiently for the following crop to prevent competition between the new crop and the stock left over from the previous year, and at times, stocks had to be carried by the pools for a period of even three years, and (iii) a point came at which banks declined to finance the stock with the result that the co-operative pools were forced to sell at the best prices obtainable.

The important tobacco markets particularly in Virginia have organised *tobacco boards of trade* for the purposes of encouraging, promoting and regulating sales and trade in leaf tobacco. The members of this board of trade are usually the operators of the auction warehouses and the buyers on the market. These tobacco boards appoint their own officers from among their members who are empowered to enforce proper observance of all rules, regulations and bye-laws and to punish offenders by such fines or penalties as the majority of members may determine to impose. These boards customarily regulate the sales, rapidity of sales, the time at which the sales are to start and stop, the time when payment for tobacco shall be made by buyers, the inspection and weighing of trucks of tobacco and the filling in of weekly and monthly reports, giving the number of pounds of tobacco sold by each warehouse and the average price received. They also impose fines on the members found guilty of breaking the rules, prohibit the purchase of tobacco by any one not a

member of the board of trade and assist planters in settling any disputes which may arise between them and the members of the board of trade. The tobacco boards of trade have rendered valuable service by bringing the buyers and warehousemen closer together in respect of sales, settling of disputes and building up of markets, though the tobacco growers have not yet been represented on them.

Between 1927 and 1930, the production of tobacco in the United States increased by over 36 per cent. without a corresponding rise in the domestic and foreign demand. In consequence, there was a continuous decline in price and rise in stocks. These difficulties were, however, not confined to tobacco growers alone and with a view to help farmers, the *Agricultural Adjustment Act* was passed in May 1933. The main object of this Act was to secure a rise in prices of farm products and thus restore the purchasing power of the farmer. So far as tobacco was concerned, a programme was drawn up under the provision of the Act to obtain reduction in accumulated stocks by restricting current and future crops. The full plan involved definite contracts with growers and the offer of certain rental and other payments to them in consideration of their reducing production in 1934 and 1935. Funds for this purpose were provided by a "processing tax" imposed with effect from 1st October 1933, at the rate of 4.2 cents. per lb. (farm sales weight). Prices were not slow to respond to the action taken. In 1932, the average farm price was 10.5 cents. per lb., which in 1934 rose to 21.3 cents. per lb. In January 1936, however, the Supreme Court declared the processing taxes and contracts with growers as unconstitutional. Immediately after this ruling the *Soil Conservation Act* was amended to assist the farmers and to give them practically the same privileges as were intended to be given under the *Agricultural Adjustment Act*. Payments to growers under the soil conservation programmes were smaller than under the Agricultural Adjustment Act.

The new *Agricultural Adjustment Act* of 1938 provides for continuing the soil conservation programmes and makes provisions to stabilise supplies of five major commodities, cotton, wheat, corn, tobacco and rice. The act aims at certain supply levels for the five commodities. These levels are established in fixed percentages above normal supply, and, in most cases, are the sum of normal domestic and export requirements, due arrangements being made for carry-overs. As a result of experience gained since 1933 when the first *Agricultural Adjustment Act* was passed, attempts are now being made to maintain an economic balance between production, consumption and demand under the provisions of the new Agricultural Adjustment Act and soil conservation programmes.

(b) *Canada*.—Bulk of the commercial production of tobacco in Canada is located in Ontario and Quebec. The most common method of marketing is what is known as the "barn-buying" system. In addition, a small portion of the crop is sold after being graded and packed. Under the barn-buying system, the buyers maintain a staff of fieldmen who inspect the crop in the field, while curing, and after being piled. When the market opens, the buyer visits the farm and offers an average price per pound for the crop. If the offer is accept-

able, the grower signs a contract with the buyer and awaits instructions as to stripping and delivery of the crop. Payment is made on the basis of weight when delivered at the packing house. This barn-buying system is considered by some as unsatisfactory, yet both the producers and domestic buyers appear loath to abandon it. Most of the dark tobaccos are grown under contract with the buyers. In Quebec, part of the crop is marketed through co-operative associations.

Marketing of flue-cured leaf in Ontario is under the control of a marketing association, the membership of which is made up of producers and buyers. Each year, before buying commences, all crops are appraised as to their relative value. A joint committee upon which producers and buyers have equal representation then negotiates a minimum average price for the entire crop, and fixes a date for the commencement of buying operations. Actual purchases of individual crops are not controlled except that the buying companies, all of which are licensed by the association, must purchase only from licensed growers unless authorised by the association to do otherwise. A measure of acreage control is associated with the scheme. The Burley crop is marketed under a similar plan.

(c) *Southern Rhodesia*.—The system of marketing adopted in Southern Rhodesia has changed from time to time and the methods have included sale by auction, private treaty, sealed tender and contract. In 1910, the auction system was introduced because sales by private treaty had given disappointing results. Due to a disagreement between sellers and buyers auction sales were subsequently discontinued in 1914. After the failure of the auction system the Rhodesian Tobacco Co-operative Society was registered to undertake the warehousing and marketing of tobacco. Up to 1918 this society marketed tobacco under contract with two leading manufacturing firms in the Union of South Africa. In 1923 the society was placed in voluntary liquidation and its assets and liabilities were taken over by the Rhodesian Tobacco Warehouse and Export Co., Ltd. The new company was composed of members of the old society and conducted its business more or less on the same lines. In 1926 this company exported a fairly large quantity of tobacco to the United Kingdom and in 1927 allowed their own contract with the South African buyers to lapse. It instituted sales locally by sealed tender and later by private treaty. In 1928 the auction system was re-introduced but discontinued almost immediately. The method of marketing of Southern Rhodesian Tobacco into the Union of South Africa was subject to alterations in 1930 and the latter country imposed an import duty on tobacco in excess of a quota of 2 million lb. of Virginian and 4 million lb. of Turkish tobacco which was allowed duty free. The Southern Rhodesian Tobacco Board was formed to administer this quota.

The Tobacco Marketing Act, 1936, of Southern Rhodesia, which has been recently put into operation, vests the Minister of Agriculture and Lands with extensive powers to regulate the sale and export of tobacco. The Minister's powers are exercised by a board which consists of six members representing the public service, the growers,

and the buyers. All buyers of tobacco are required to get licenses from the board which are valid for one year. The board also grants one year licenses to such premises as it may deem suitable for the sale of tobacco by auction. The board may from time to time fix a tariff for weighing, selling and commission charges. No tobacco is permitted to be sold or bartered within the colony in any other manner than by auction on licensed auction floors, nor can any tobacco which is not tobacco as defined for the purposes of the Act be offered for sale on any licensed auction floor except with the permission of the board. Besides, no person is allowed to use for the purposes of manufacture or for sale any tobacco produced in Southern Rhodesia unless purchased on licensed auction floors.

Every year, each registered grower was to be allowed his sales quota in the tobacco requirements of the local and protected markets for the season. No person was to be allowed to export any tobacco from the colony except under the permission issued under the authority of the Minister. The board has powers with the approval of the Minister to require growers, licensed auction floor owners and buyers, to supply such information as it may require regarding their operations. The auction system proved acceptable but the allocation to individuals of the quantity which they might produce and might sell gave rise to dissatisfaction. An amending act of 1937 abolished all restrictions on the quantity of tobacco the grower might sell.

(d) *Union of South Africa*.—In South Africa, growers are organised into producers' co-operative organisations. There is an element of compulsion in the South African co-operative movement. When three-fourths of the producers in any area producing altogether at least three-fourths of any specified agricultural produce, are members of a co-operative society, then that society can, in accordance with the Co-operative Society Act, move the Government to order, that all producers in that area, whether members of the society or not, must deliver their crop to and sell through the society. The co-operative societies generally own warehouses where the tobacco is received, graded and baled. The bales are handled individually and the owners of respective bales are debited with the cost of handling. Tobacco is sold according to grades. All the co-operative societies are associated in the Central Co-operative Tobacco Company which regulates prices at which leaf may be sold to local manufacturers and controls selling of the whole of the surplus stocks of the members, available for export. Thus a practice of centralised selling, combined with that of giving the farmer at the time of delivery of his crop, an advance based on its anticipated market value, has been established. An Act of 1935 set up a Control Board as the main administrative body to carry out any regulations that might be laid down by the Minister of Agriculture, which may include grading and standardisation, prohibition of manufacture or sale of tobacco below a specified quality and other regulations considered to prove beneficial to the industry generally.

(e) *Nyasaland*.—Following the example of Southern Rhodesia, the Nyasaland Protectorate has now adopted a system of state control for the marketing of tobacco under the Tobacco Marketing

Ordinance enacted in December 1937. For the present, this Ordinance applies only to flue-cured tobacco. Provision has been made to set up a Tobacco Control Board consisting of officials and non-officials selected from among the growers, buyers and exporters. The Board is empowered to register growers, license buyers and auction floors, control the procedure on the auction floors, fix the maximum charges for weighing and selling on the auction floors and even to determine the minimum selling prices. The Board has also got power to establish and control a tobacco pool, to which every grower is to contribute all his tobacco that is not required for the local market or for export under permit or is not sold on an auction floor.

No grower is allowed to produce flue-cured tobacco unless registered with the Board in accordance with the provisions of Tobacco Marketing Ordinance. Flue-cured tobacco, and any other type to which the Ordinance may be applied by notification, can be only sold by auction on a licensed auction floor. No person is allowed to purchase tobacco unless duly licensed. Growers are permitted to retain a certain percentage of produce for home consumption, while the export is restricted by quota certificates and export permits.

(f) *Japan.*—A tobacco monopoly law is in operation in Japan from 1898. In July 1904 a revised tobacco law was enacted which extended the monopoly control over manufacture and sales. Private-owned factories were taken over by the Government, additional factories constructed and the entire industry managed by the monopoly. Sales by the monopoly were made to licensed wholesalers, who in turn, sold to licensed retailers. In 1931 the wholesale system was abolished and the monopoly established its own marketing organisation, delivering tobacco directly from the monopoly to licensed retailers. At present the monopoly has complete control over all aspects of the tobacco industry from the time the seeds are planted until the finished goods reach the consumers. The cultivation of tobacco is permitted only to licensed growers and controlled by the monopoly. The monopoly guarantees a per acre return on tobacco for each grower. All operations in the cultivation of tobacco are regulated and the methods of harvesting and curing are laid down. After curing, the tobacco leaf must be carefully graded and tied into hands in a prescribed manner; even the material that may be used for wrapping and tying the bundles is prescribed. Tobacco inspectors are employed to see that all the monopoly rules and regulations are carried out. The farmers' crop can only be sold to the monopoly. If any grower fails to follow the specified instructions, his license is liable to be cancelled. If his tobacco leaf is not graded and packed according to the monopoly regulations, it is not purchased until it is properly graded and packed. After the tobacco leaf reaches the monopoly, it remains in its possession until sold in the form of retail tobacco products or exported as leaf. Re-drying, storing, manufacture, sale to retailers and export are all carried out by the monopoly.

Japanese tobacco monopoly has no purchasing organisation in India and prefers to leave the exports of Indian tobacco to Japan to commercial interests. Consequently the monopoly has no repre-

sentative to check consignments before despatch to Japan. Their purchases are made in Japan and not in India, and consequently, the exporter from India has every chance of getting his consignment rejected and returned to India, though such occasions are extremely few. Before ascertaining the annual requirements of foreign tobacco the monopoly estimates the production within the country and related territories and then submits its own estimates of requirements. The funds required are afterwards officially sanctioned and the monopoly is then in a position to notify its requirements by about the end of September every year. As explained in Chapter X, the country (*Natu*) cigarette tobacco exported from India to Japan becomes ready for the market in April and May so that the exporters from Guntur (Madras) have to purchase leaf from the growers during these months in the hope of getting orders in September and October which is a matter of chance. It is apparent that it is exceedingly difficult to depend on the Japanese demand for the extension of cultivation of country cigarette tobacco in India. In fact, the area under this type of tobacco is largely declining in preference to the flue-cured cigarette tobacco, due to the uncertainty of the Japanese demands, but more particularly owing to the better prices realized for the Virginia leaf.

(2) CONSUMING COUNTRIES.

The strongest current of international export trade in unmanufactured tobacco is towards Europe and hence the countries in Europe are the most important consumers of tobacco. From the point of view of control over the tobacco industry, the European countries may be divided into three classes : (i) countries where all aspects of tobacco industry are controlled by a monopoly, (ii) countries where only some phases of the industry are controlled through "cartels", Government supervision or other regulatory measures, and (iii) non-monopoly countries who levy import duties and excise taxes.

The non-monopoly countries are the United Kingdom, Netherlands, Finland, Norway, Denmark, Greece, Switzerland and Belgium. In Germany, Portugal and the Baltic States there are no actual monopolies but certain phases of the industry are subjected to Government or other regulations of monopolistic nature. The monopoly countries are France, Italy, Sweden, Spain, Austria, Hungary, Czechoslovakia, Poland, Rumania, Bulgaria, Yugoslavia, Turkey and the U. S. S. R. All these countries have State or Government monopolies except in Spain and Sweden where monopolies are rented or conceded to some private company under certain conditions. The monopoly determines the area to be planted and the quantity to be marketed. The tobacco leaf is delivered to the monopoly which fixes the growers' prices. Where State monopolies exist, the Government usually buys the whole crop and exports the surplus, if any. Generally the factories are owned by Government and manufactured products are sold by retailers at prices fixed by the State.

(a) *United Kingdom.*—The United Kingdom is the world's largest single importer of unmanufactured tobacco which is imported in two ways : (i) between 70 to 80 per cent. of the imported leaf is purchased in the country of production by one of the world's largest tobacco combines, the Imperial Tobacco Co. (of Great Britain and Ireland), Ltd., on behalf of its constituents, and (ii) the remainder of the imports passes through the hands of merchants, brokers and dealers before reaching the manufacturer.

The Imperial Tobacco Co. (of Great Britain and Ireland) holds dominant position controlling about three-fourths to four-fifths of the tobacco industry in Britain. This company was formed in 1901 to resist an attempt then made on Britain's tobacco industry by a powerful association of American manufacturers. It took over the business of several firms from time to time and now controls the activities of over a dozen and a half firms. The constituent firms retain their entities within the combination, but in the matter of purchase of leaf the company acts as a single unit. The company's activities now embrace all the branches of the industry, such as supply of seed and seedlings, buying and grading the leaf in accordance with the requirements of constituent firms, re-drying, packing, transport, warehousing, manufacture and distribution to wholesalers and retailers. The only branches not yet covered by the company are actual growing of tobacco and selling to consumers. The company has got its own factories, reconditioning plants and warehouses in various countries including India.

The manufacturing firms who have not joined the Imperial Tobacco Co. purchase their supplies for the most part in the United Kingdom. On arrival in the United Kingdom, the tobacco packages are removed from the ship's side to the bonded warehouse under Customs supervision and it is usual to have the packages weighed there as soon as possible after receipt. The Customs regulations require that all importations of tobacco should be weighed net within a specified period after the date of receipt in the bonded warehouse. The Customs officials are very-particular about the weight as import duty is collected on the basis of net weight of tobacco. A 4 lb. sample is taken from each package, hogshead or bale by experienced warehouse officials at the time of inspection and weighing and all sales are conducted on the basis of these samples. Sale by inspection and sample is therefore the rule and no business is conducted on the basis of standard description of type and quality. The trade appears to be satisfied with this method, the general view being that requirements of manufacturers vary to such an extent as to make it necessary for each manufacturer to see the actual sample before buying. It is, however, of utmost importance that all leaf in a package should conform to the sample and be as uniform as possible in the consignment offered for sale. It is in this respect that the leaf imported from America and also recently from Canada and Rhodesia has succeeded in establishing a good reputation among manufacturers. It is also in this respect that complaints about Indian tobacco are most common and in consequence the general price level of Indian tobaccos in the English market has been up to now, lower

than that of tobacco imported from other countries. The main defect with the Indian leaf hitherto has been that unlike other countries such as United States of America, Canada, and Rhodesia, there were no standard grades for Indian tobaccos and the quality of consignment offered for sale in the English market was so uncertain that the buyer always quoted a much lower price for Indian leaf to safeguard himself against the risk of bad leaf being mixed in the package. The general quality of the leaf produced in India during recent years has been as good as that found in any other part of the British Empire and if the standard grades are more fully adopted, there is no reason why Indian leaf should not win the confidence of British manufacturers. Buyers must, however, give some encouragement to sellers by purchasing on the basis of the standard grades and by quoting differential prices for the different grades instead of a flat rate as at present.

Large manufacturing interests in the United Kingdom obtain their supplies of Indian leaf chiefly from or through the Indian Leaf Tobacco Development Co., Ltd., India. Most of the remaining portion of the Indian leaf, as it reaches the United Kingdom market, is shipped not by growers but by Indian exporters on consignment -basis to be sold through London or Liverpool brokers and leaf merchants.

All tobaccos are sold privately and the trade is not organised in the same way as for many other commodities. There are no recognised auction sales nor are there regular exchanges, futures markets or standard forms of contract. The tobacco section of the London Chamber of Commerce does not control any selling organisation, its main function being to discuss matters of general interest like duties, laws, etc. After the sale is effected a delivery order is usually handed over by the seller or his agent to the buyer who then makes his own arrangements for removing from the bonded warehouse as and when he requires tobacco after the payment of import duty.

It is claimed that in the absence of a regular exchange or auction sales, sale of goods immediately on arrival in the United Kingdom is not possible. To effect a sale, therefore, by private negotiations it takes some time which may range from a few weeks to even a year depending on the keenness of demand for the type of tobacco offered for sale.

(b) *France*.—The tobacco industry in France is controlled by a state monopoly which was first established in 1730. The monopoly has been in continuous operation since then except for a break of twenty years from 1791 to 1811. The main object at the back of this early organisation was to increase the revenue of the Government. This idea was enlarged in 1926 since when the income of the monopoly has been used for the amortisation of the public debt.

(c) *Germany*.—There are several Government restrictions and regulations though the tobacco industry in Germany is nominally handled by private companies. Restrictions regarding packing and

warehousing and numerous taxation laws are reported to have greatly burdened the industry in recent years. Imports of leaf are governed by the new German import control laws. These laws allowed some latitude on the exchange requirements to buy tobacco leaf until September 1934 when tobacco was placed under a supervisory and control board and from the standpoint of importation it became a controlled commodity. Tobacco production is under Government regulation and cigarette and smoking tobacco industries are under cartel organisation for the past several years.

(d) *Italy*.—A Government monopoly controls the production, warehousing, manufacture and distribution of tobacco and tobacco products in Italy. All the leaf tobacco is inspected and that not coming up to the standards is destroyed. Cultivation of tobacco is permitted only to authorised growers.

(e) *Spain*.—The tobacco industry in Spain is controlled by a monopoly conceded since 1930 to a company which receives a stipulated percentage of net profits for its services.

FINAL INTER-CHAPTER.

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS.

The annual value of the tobacco crop grown in India is somewhere about 18 or 20 crores of rupees. If manufactured tobacco products are included the total value is probably nearer 40 or 50 crores. The export trade alone is worth about 1 crore of rupees a year. It will be appreciated, therefore, that a small percentage of improvement in price returns owing to better marketing would mean a considerable addition to the cash income of producers.

Importance of quality.

The general trend of prices indicates that good quality tobaccos are rising in price but the price of second rate tobacco is steadily falling. Exports of good quality tobacco are increasing, those of low quality decreasing. Imports of good quality cigarette and chewing tobaccos remain high and can only be displaced by the production of equally good quality in this country. At every turn quality is the most outstanding factor of importance in the marketing of tobacco. High quality not only results in higher prices for producer's but ensures a wider market for Indian tobacco both in this country and abroad.

Control of quality.

So far as tobacco is concerned, ordinary competitive forces are not enough to ensure the production of the right quality. In most cases the grower does not know to what use his tobacco will eventually be put.

The respective quality factors of cigarette, cheroot, cigar, *bidi*, *hookah* and chewing tobaccos are entirely distinct and are not known to the producer. The problem of improving the quality of Indian tobacco can-

not, therefore, be left to individual growers. If the general level of quality is to be raised and maintained it can only be done by organised direction and control.

A step in this direction has been taken by the organisation of the Indian Tobacco Association, which amongst other things seeks to educate the grower in the production of the right quality of cigarette leaf. Voluntary efforts of this kind, however, appear to have their limitations both in regard to the time taken to attain their objective and as regards the area covered. It is a question whether the provincial and State governments, particularly those covering the five main producing areas, should not take immediate steps to secure more direct control over the quality of tobacco produced in their area.

Improved seed and seedlings.

Unless special precautions are taken to prevent cross-fertilisation, the quality of any particular variety of tobacco deteriorates distinctly in a very short time. This is specially true of good quality Virginia cigarette leaf, and in this case it is customary for fresh supplies of pure seed to be regularly imported from the United States of America.

Some attempt is being made by provincial and State Governments to propagate pure seed on Government farms for subsequent distribution to growers. Mysore State has probably been most successful in these operations with regard to Virginia Cigarette tobacco but much more needs to be done by the appropriate departments to maintain the purity of the seed and to organise its distribution or the distribution of seedlings to all growers in their areas. This may be done either direct by the Agricultural Departments or through co-operative or trade associations, but the problem is urgent.

Better harvesting and curing methods.

Little progress has been made in recent years in the methods employed in preparing tobacco for the market. In spite of the number of flue-curing barns having multiplied considerably, the methods employed remain much the same although it would appear that the existing methods are susceptible of much improvement and the time of curing capable of being reduced considerably. The Imperial Council of Agricultural Research has established a number of experimental flue-curing barns throughout the country but much more needs to be done to speed up the practical application of the research work.

Apart from the fact that operators of curing barns are not fully informed as to the best technique of curing, many of them deliberately dry tobacco which they know is not suitable or fit for export or manufacturing purposes. Owners of redrying plants to some extent follow similar practices and process leaf which is altogether too low in quality.

It is a question whether steps should not be taken, amongst other things, to license curing barns and redrying plants and exercise some control over their operations, so as to ensure, for example, that they handle only leaf of approved types and of a quality suitable for the purpose for which it is intended.

Standard grades and methods of packing.

A great deal of harm is done to the reputation of Indian tobacco by putting on the market low quality produce which purports to be high grade. Defective leaf of poor quality is cured and packed mixed along with good quality leaf in such a way as to lead to unfair competition and to disappointment on the part of buyers. Further, owing to the absence of any clearly defined

grades of quality the comparison of price quotations becomes impossible and opens the way to malpractices.

It seems essential, if the quality of Indian tobaccos is to be improved and maintained, that buyers and sellers, from the growers onwards, should be induced—or compelled—to adopt standard grades and methods of packing.

So far as cigarette tobacco is concerned AGMARK grades for Virginia and country leaf, both flue-cured and sun-cured, have been prescribed under the Agricultural Produce (Grading and Marking) Act, and the Indian Tobacco Association at Guntur have made themselves responsible for preparing seasonal standard samples of the various grades which are sent to the High Commissioner for India, London, for exhibition and distribution to the trade in England and other countries.

Many of the exporters have adopted the AGMARK system of grading and marking their goods but more needs to be done to ensure the wider adoption and more general use of the prescribed grades. It would appear that the practical adoption of such grades might be ensured through a system of licensing buyers and curing barns already referred to, and by the exercise of some control over exports on the basis of standard grades, particularly so far as tobacco dispatched for sale on consignment abroad is concerned.

Establishment of regulated markets and auction floors.

From the report it is clear that there is an almost complete absence of tobacco markets having a central and convenient place where the growers can assemble their produce for sale as is customary in the case say of cotton or wheat. The establishment of regulated markets at suitable centres, particularly in the five main tobacco producing areas is, therefore, a matter for consi-

deration by the authorities in those areas. In establishing such markets it would be desirable that the system of sale by open auction on the floor of the market should be introduced and that growers should be induced to sort out their leaf and offer their tobacco for sale on the basis of standard grades. This in itself would act as a strong force in educating growers to improve the quality of their leaf since they would be able to compare at once their prices with those obtained by other growers who had adopted better methods.

The establishment of regulated markets for tobacco would make it possible to introduce a proper market news service with regard to supplies and prices for the information of buyers and sellers. It would also be possible in such cases to reduce the amount of market charges which are at present scandalously high in some parts.

Improved price returns.

At present the grower gets only about 40 per cent. of the price realised for his Virginia cigarette leaf sold in the United Kingdom, and only about 30 or 35 per cent. of the price secured for sun-cured country tobacco. It is evident, therefore, that there is considerable room for improving the price returns to growers by reducing the costs of distribution. Attention may be drawn here to a few of the leading points at which some reduction in distribution costs is possible.

Storage losses for example on account of damage by insects alone are estimated at about Rs. 10 lakhs per annum. Some use has already been made in this country of cool storage in warehouses where the temperature and humidity can be controlled but much more needs to be done in this direction. The provision of suitable safe warehouse accommodation in the main producing areas

would make it possible for lenders to advance money on tobacco with safety. At present the joint stock banks do very little business of this kind, and the amount of business done by the shroffs is also very small. At least one successful attempt on co-operative lines has been made and the lesson is worthy of study by co-operative departments in other areas.

The numerous and often incomprehensible systems of weights provide much scope for exploiting illiterate producers and stand in the way of the development of trade and market news service. Immediate action is, therefore, needed to adopt standard weights applicable to the whole country. The types of scales used in the wholesale and retail trade also require urgent attention.

The incidence of octroi duties levied by certain municipalities is so heavy as to lead to the diversion of trade and higher costs of distribution. Market charges, particularly in kind, and in the form of weight deductions are, as a rule very high and their regulation is called for. It is observed that the incidence of railway freight on raw and manufactured tobacco is relatively much higher than on the more valuable manufactured products, and it is for consideration whether some re-adjustment is not possible.

Although the seasonal fluctuation in the prices of tobacco of different kinds seems very high, tobacco does not appear to suffer in the same way as other crops from a depression at harvest time. The reverse seems to be the case since prices are at their best immediately after harvest. This is largely owing to the fact that the quality of the earlier pickings is better than that of the late. Buyers are anxious to take delivery as soon as possible after harvest and any proposal to introduce co-operative marketing on the part of the growers would have to take into account the danger of holding back the

crop unless at the same time very effective steps were taken to ensure that the storage was of such a character that the quality improved rather than deteriorated. In general, if the tobacco is properly stored there should, in fact, be an improvement rather than a deterioration of quality up to a period of about two years.

In regard to prices generally the importance of stabilisation needs to be emphasised. In view of the fact that manufacturers of high quality products such as cigarettes and cigars, as a rule, hold about two years' stocks in hand their requirements are fairly regular and steady. Any large variation in the amount of supplies pressed on the market by growers, is therefore liable to result in very much reduced prices. The presence of a relatively small quantity of unsold tobacco floating round the market has a very depressing effect on prices as the season advances. It would appear desirable therefore that every inducement should be given to buyers to enter into contracts with growers at the time of planting in order to ensure a ready market for all the growers' produce at harvest time.

Improved distribution of tobacco products.

The use of certain constituents for flavouring some of the products is admissible, but *hookah* tobacco is commonly adulterated with sand, earth, cotton waste and other undesirable things. Chewing and *bidi* tobaccos are also subject to adulteration. Some steps are necessary to put a stop to the grosser forms of adulteration. It would not seem possible to deal with this entirely by defining standard grades for say, *hookah* and chewing tobaccos as the practice is much too widespread. The use of the Agricultural Produce (Grading and Marking) Act in connection with those products would, however, apparently be of value to manufacturers, in so far as

many consumers of chewing tobacco, for example, prefer to use pure leaf rather than the manufactured article of unknown composition. The question of standardising and marking the better qualities is, therefore, a matter for consideration by the trade.

Trade marks and other distinguishing marks are freely copied and the widespread misuse of trade marks is an abuse calling for legal remedy.

Apart from these defects in the trade it is apparently common for manufacturers to resort to all kinds of devices—some of a questionable nature—to induce distributors to stock and sell their particular products. There is room for the further expansion of the industrial manufacture of tobacco products in this country, but in order to ensure its development on sound lines it would seem desirable that there should be more consultation among manufacturers with a view to regulating the distribution of their products on a sound basis.

Certain provincial and State governments have adopted a system of charging licence fees from all tobacco traders and the majority of Indian States levy import and export duties, or have a system of auctioning out the rights to trade in tobacco and its products. Municipalities also in many cases levy heavy octroi duties on the trade. The effect of such restrictions and regulations has, in some cases, resulted in driving out the industry and it seems necessary to draw attention to the danger of such local restrictions which are designed solely for revenue purposes. If, however, a licencing system, for example, is combined with steps designed to control and improve the trade, particularly as regards quality, the system would appear to be advantageous to the industry rather than otherwise. This would be the case more especially if an equitable system of control on an all-India basis could be arrived at.

Need for closer study of local problems.

Each of the main producing areas has its own problems distinct from those in other areas. In the Guntur district of Madras, for example, the main problem is to ensure the production of high grade flue-cured Virginia cigarette leaf, particularly to meet the important export market, mainly the United Kingdom, which has rapidly expanded in recent years. This calls for strict quality control and involves the organised distribution of pure seed and seedlings, the establishment of regulated markets (auction floors), the adoption of standard grades by producers and others, the licensing of flue-curing barns and redrying plants, and the fostering of organised voluntary efforts on the part of trade or co-operative associations.

In Bengal one of the main problems arises out of the fact that the export trade to foreign countries in cigar and cheroot leaf has been steadily falling off and there appears, therefore, a need to divert production on to other more suitable types. The question of standard grading and marking of some of the well-known types of Bengal cheroot and *hookah* tobaccos seems also worth considering.

In Bihar the demand for local leaf for cigarette purposes has been falling off and it is a question whether steps should not be taken to expand the market for Bihar chewing tobacco through systematic grading and marking. This process might be assisted by the establishment of regulated markets.

In Mysore, the State has made remarkable progress in expanding the area and improving the quality of local cigarette leaf, but much remains to be done and more effective control could probably be established through the licensing of flue-curing barns.

In the Charotar and Nipani areas which concentrate largely on the production of *bidi* leaf, the establishment of regulated markets is called for and the possibility of grading and marking the better qualities of *bidi* mixtures requires investigation.

The value of the tobacco crop in all the main areas is so great, and the possibility of still further enhancing its value is so promising that the Governments concerned would seem to be well justified in appointing some special staff to improve the production, preparation for market and marketing of the local produce.

Improvement of official statistics.

The two species of tobacco, *viz.*, Nicotiana Tabacum and Nicotiana Rustica, are very distinct and the final product is put to entirely different uses, but no attempt has so far been made to differentiate between the two species in official statistics. It is important that this should be done particularly on account of the fact that the world trade and the export trade of this country consists almost solely of Nicotiana Tabacum. Particulars regarding the production and supply of this type are therefore important not only for producers and others in this country but also for buyers abroad.

The two botanical species are capable of further subdivision into commercial types according to the purpose for which they are to be used, *viz.*, cigarette, cigar, cheroot, *bidi*, chewing and *hookah*, and in regard to cigarette leaf a further sub-division of production estimates and forecasts is required into flue-cured and sun-cured Virginia and country (*Natu*) respectively.

Until the estimated production and supplies are classified on the lines indicated and until prices are quoted on the basis of those particular types, official statistics will continue to have little or no commercial value.

APPENDICES.

APPENDIX I.

Area under tobacco in the principal countries of the world.
(Thousand acres).

	1925-26 to 1929-30 Average.		1930-31.		1931-32.		1932-33.		1933-34.		1934-35 Average.		1930-31 to 1934-35 Average.		1935-36.		1936-37.	
	Area.	Per cent.											Area.	Per cent.				
<i>Empire countries.</i>																		
India (including Burma)	1,347	22.7	1,408	1,435	1,399	1,375	1,563	1,436	23.4	1,535	1,497					
Canada	37	0.6	41	55	54	47	41	48	0.8	47	55					
Southern Rhodesia	29	0.5	16	29	34	43	41	33	0.5	42	41					
Nyasaland	40	0.7	48	49	32	41	38	42	0.7	43	59					
Union of S. Africa	30	0.5	(a)	(a)	(a)	24	31	(b) 27	0.4	30	(a)					
Australia	2	0.03	3	18	26	16	9	14	0.2	11	12					
Northern Rhodesia	(a)	..	..	2	3	2	3	3	2	0.03	3					
New Zealand	1	0.02	1	2	2	2	1	2	0.03	1	(a)					
<i>Foreign countries.</i>																		
U. S. A.	1,757	29.6	2,112	2,000	1,409	1,733	1,279	1,707	27.9	1,437	1,438					
Netherland E. Indies	499	8.4	513	578	479	434	524	506	8.3	450	419					
U. S. S. R.	218	3.7	234	497	610	465	468	455	7.4	487	501					

Brazil	..	..	203	3·4	321	329	304	321	321	319	5·2	255	269
Greece	..	..	222	3·7	239	209	157	192	181	196	3·2	198	273
Philippines	..	..	195	3·3	198	184	193	184	137	179	2·9	152	162
Turkey	..	..	156	2·6	161	170	65	126	116	128	2·1	146	148
Cuba	..	..	151	2·5	172	171	93	112	104	130	2·1	116	109
Italy	..	..	96	1·6	108	103	99	86	86	97	1·6	82	80
Japan	..	..	91	1·5	89	90	84	84	85	86	1·4	87	87
Bulgaria	..	..	82	1·4	79	86	50	67	55	67	1·1	86	92
France	..	..	40	0·7	38	39	41	44	44	41	0·7	45	46
Hungary	..	..	52	0·9	58	62	61	45	41	53	0·9	37	35
Germany	..	..	22	0·4	23	26	27	30	30	27	0·44	32	32
Czechoslovakia	..	..	15	0·3	18	22	25	25	25	23	0·4	25	24
<i>Rest of the countries of the world (excluding China)</i>													
	..	..	651	11·0	609	521	504	434	487	511	8·3	563	574
World area (excluding China)	..	..	5,936	100·0	6,491	6,678	5,750	5,933	5,708	6,129	100·0	5,910	5,956
China	..	..	(a)	(a)	(a)	(a)	(a)	(a)	1,305	1,292	(b) 1,298	..	1,353
World total (including China)	..	..	(a)	(a)	(a)	(a)	(a)	(a)	7,238	7,000	(b) 7,427	..	7,269
													7,301

Figures extracted from the publications of the League of Nations and the Imperial Economic Committee, London. Figures for India extracted from the table given in Appendix IV.

(a) Figures not available.

(b) Average of two years, 1933-34 and 1934-35.

APPENDIX II.
Production of tobacco in the principal countries of the world.
(Million lb.)

	1925-26 to 1929-30 Average.		1930-31.		1931-32.		1932-33.		1933-34.		1934-35.		1930-31 to 1934-35 Average.		1936-37.	
	Produc-tion.	Per cent.											Produc-tion.	Per cent.		
<i>Empire countries.</i>																
India (including Burma)	..	1,350	27.7	1,337	1,359	1,393	1,254	1,548	1,378	1,449	1,449	1,376				
Canada	35	0.7	37	51	54	46	39	45	0.9	54	46			
Southern Rhodesia	15	0.3	9	15	14	27	21	17	0.3	22	22			
Union of South Africa	17	0.3	17	21	9	14	16	15	0.3	18	20			
Nyasaland	13	0.2	12	20	13	15	12	14	0.3	16	17			
Australia	2	0.04	2	10	10	4	-	3	6	0.1	6	5		
Northern Rhodesia	(b)	..	1	1	1	2	2	1	0.02	1	1	1		
New Zealand	1	0.02	1	1	2	1	1	1	0.02	1	(b)			
<i>Foreign countries.</i>																
U.S.A.	1,357	27.8	1,647	1,584	1,023	1,306	1,082	1,340	27.5	1,297	1,155		
U.S.S.R.	315	6.5	285	373	340	330	379	341	7.0	381	608		

Brazil	..	..	..	..	..	200	4·1	215	220	204	222	220	216	4·4	213	192
Japan	..	..	..	..	..	142	2·9	142	151	134	147	149	145	3·0	149	142
Netherlands E. Indies	..	..	..	..	..	186	3·8	187	184	164	123	115	155	3·2	116	109
Italy	..	..	..	..	..	91	1·9	129	103	102	98	100	106	2·2	102	97
Greece	..	..	..	..	..	138	2·8	145	95	64	121	92	103	2·1	102	179
France	..	..	..	..	..	61	1·3	69	70	68	63	87	71	1·5	84	81
Turkey	..	..	..	..	..	115	2·4	104	113	40	78	79	83	1·7	79	99
Philippines	..	..	..	..	..	102	2·1	102	96	100	92	72	92	1·9	63	71
Germany	..	..	..	..	..	44	0·9	46	51	62	65	77	60	1·2	76	72
Bulgaria	..	..	..	..	..	61	1·2	59	69	38	54	47	53	1·1	61	67
Cuba	..	..	..	..	..	66	1·3	82	81	35	37	46	56	1·2	43	42
Hungary	..	..	..	..	..	58	1·2	75	80	87	53	47	68	1·4	47	46
Czechoslovakia	..	..	..	..	..	19	0·4	22	30	38	26	30	29	0·6	30	38
Rest of the countries of the world (excluding China)	..	..	..	..	..	491	10·1	529	480	465	435	477	477	9·8	497	529
World total (excluding China)	..	..	..	..	..	4,879	100·0	5,254	5,258	4,460	4,672	4,741	4,872	100·0	4,906	5,013
China	(b)	(b)	(b)	(b)	(b)	(b)	1,389	1,327	1,358	..	1,393	1,404
World total (including China)	(b)	(b)	(b)	(b)	(b)	(b)	6,061	6,068	6,230	..	6,299	6,417

Figures extracted from the publications of the League of Nations and the Imperial Economic Committee, London. Figures for India from 1930-31 onwards extracted from Appendix V.

(b) Figures not yet available.

APPENDIX III.

Imports† of unmanufactured tobacco into the principal importing countries of the world.
 [Million lb.]

		1930	1931	1932	1933	1934	Average 1930-34.	1935	1936
<i>Empire countries.</i>									
United Kingdom	..	237	194	175	211	239	211	252	271
Australia(a)	..	20	22	15	15	12	17	17	20
Eire	..	12	11	7	5	19	11	11	15
Canada	..	17	14	10	10	9	12	7	3
British Malaya	..	8	6	4	3	3	5	3	2
<i>Foreign countries.</i>									
Germany	..	233	154	162	174	190	183	192	192
U. S. A. (b)	..	104	95	68	73	77	83	85	90
France	..	155	111	106	86	61	104	75	66
Netherlands	..	70	74	71	77	65	71	61	62
Spain	..	57	65	88	63	40	63	61	(c)
Belgium	..	49	50	49	44	44	47	44	41
Czechoslovakia	..	22	23	22	30	10	21	25	20
Poland	..	39	20	15	19	16	22	18	14
China	..	129	168	83	56	66	100	18	25
Total	..	1,152	1,007	875	866	851	950	869	821

(a) Years ending June 1930.

(b) Imports for home consumption.

(c) Figures not yet available.

†(See "Plantation Crops", Imperial Economic Committee, London, 1937).

APPENDIX III—*concl.*

Exports† of unmanufactured tobacco from the principal exporting countries of the world.

[Million lb.]

		1930	1931	1932	1933	1934	Average 1930-34.	1935	1936
<i>Empire countries.</i>									
India (by sea) ..	..	29	25	22	28	27	26	27	29
Southern Rhodesia ..	..	7	8	13	12	21	12	18	18
Nyasaland ..	..	13	11	15	10	13	12	10	13
Canada ..	..	5	7	11	14	9	9	8	10
Northern Rhodesia ..	..	1	1	1	1	1	1	1	1
<i>Foreign countries.</i>									
U. S. A. ..	..	580	524	411	439	441	479	396	425
Greece ..	..	108	95	78	77	82	88	111	88
Netherlands E. Indies ..	..	177	184	164	108	94	145	108	105
Brazil ..	..	84	85	64	43	67	69	72	69
Bulgaria ..	..	49	54	45	50	46	49	54	44
Turkey ..	..	72	49	64	57	40	56	48	55
China ..	..	16	18	13	21	33	20	30	38
Philippines ..	..	46	50	59	37	29	44	41	32
Cuba ..	..	58	40	36	30	27	38	31	23
Total ..	..	1,245	1,151	996	927	930	1,048	955	950

APPENDIX IV.

Area under tobacco in India and Burma.
(Thousand acres).

Period.	British India.										Indian States.					Total India.			Burma.		Grand total India and Burma.	
	Total.	Bengal.	Bihar and Orissa.	Madras.	Punjab.	U.P.	Total.	Guj.	Baroda.	Cooch Behar.	Deccan States and Kolhapur.	Nizam's Dominions.	Mysore.	Others.	Total India.	Burma.	Grand total India and Burma.					
Pre-war average (average of 5 yrs. ending 1913-14).	919	318	113	*92	205	59	87	45	(b)	14	(a)	(a)	(a)	(a)	933	90	1,023	(b)				
1919-20	..	968	342	113	*107	228	54	82	42	(b)	160	24	(a)	(a)	116	20	(a)	1,128	126	1,254		
1920-21	..	832	258	117	*115	201	40	65	36	(b)	186	28	(a)	(a)	135	23	(a)	1,018	101	1,119		
1921-22	..	963	298	118	*120	203	90	89	45	(b)	254	31	(a)	(a)	201	22	(a)	1,217	86	1,303		
1922-23	..	922	299	119	*102	214	56	89	43	(b)	259	34	(a)	(a)	201	24	(a)	1,181	111	1,292		
1923-24	..	906	288	117	*105	220	62	72	42	(b)	213	28	(a)	(a)	159	26	(a)	1,119	119	1,238		
Average 1919-20 to 1923-24.	918	297	117	*110	213	60	79	42	(b)	214	29	(a)	(a)	162	23	(a)	1,132	109	1,241			
1924-25	..	946	280	113	*122	265	54	73	39	(b)	232	30	(a)	(a)	140	27	35	1,178	119	1,297		

1925-26	..	978	293	132	*122	244	71	79	37	(b)	248	27	(a)	(a)	155	31	35	(b)	86	1,312
1926-27	..	948	295	137	*109	232	62	75	38	(b)	208	26	(a)	(a)	116	26	40	(b)	101	1,257
1927-28	..	1,022	290	147	*124	276	73	72	40	(b)	206	31	(a)	(a)	105	25	45	(b)	118	1,346
1928-29	..	1,029	291	146	*153	255	64	81	39	(b)	205	38	(a)	(a)	99	28	40	(b)	114	1,348
Average 1924-25 to 1928-29.		985	290	135	*126	254	65	76	39	(b)	219	30	(a)	(a)	123	27	39	(b)	108	1,312
1929-30	..	1,050	295	142	157	257	59	101	39	306	45	53	51	81	24	52	1,356	117	1,473	
1930-31	..	995	284	136	139	243	71	73	49	302	37	52	50	87	23	53	1,297	111	1,408	
1931-32	..	1,057	293	141	150	269	85	67	52	291	36	54	50	78	25	48	1,348	87	1,435	
1932-33	..	1,023	281	161	131	256	66	83	45	288	37	51	50	78	25	47	1,311	88	1,399	
1933-34	..	982	286	140	140	248	49	81	38	290	44	52	52	74	25	43	1,272	103	1,375	
1934-35	..	1,149	308	133	180	292	88	100	48	312	59	58	52	75	23	45	1,461	102	1,563	
1935-36	..	1,101	307	140	160	280	78	84	52	306	55	58	52	72	23	46	1,407	104	1,511	
Average 1929-30 to 1935-36.	Average per cent	1,051	293	142	151	264	71	84	46	299	45	54	51	78	24	47	1,350	102	1,452	
1936-37.		77.8	21.7	10.6	11.2	19.5	5.2	6.2	3.4	22.2	3.3	4.0	3.8	5.8	1.8	3.5	100.0	..	..
1937-38†.	(a)	313	155	170	(a)	(a)	88	(a)	(a)	(a)	48	58	52	65	22	(a)	(a)	99	(a)	96

* Including Sind.

(a) Figures not available.

(b) Figures incomplete.

† Provisional Figures.

(a) Figures not available.

(b) Figures incomplete.

† Provisional Figures.

(a) Figures not available.

(b) Figures incomplete.

† Provisional Figures.

APPENDIX V.

*Estimates of production of raw tobacco in India and Burma.**
(Thousands tons).

Years.	British India.		Indian States.		Burma.		Grand total India and Burma.											
	Total.	Bengal.	Total.	Guj.	Others.	Total India.												
1930-31	455	120	65	35	101	27	93	7	26	11	17	8	24	548	49	597		
1931-32	476	122	63	47	119	30	65	8	27	11	16	8	22	568	39	607		
1932-33	492	139	58	39	115	30	88	23	91	8	25	11	18	8	21	583	39	622
1933-34	430	123	53	33	107	20	75	19	85	5	26	12	15	8	19	515	45	560
1934-35	549	144	59	48	128	38	103	29	97	11	29	13	16	7	21	646	45	691
1935-36	497	129	52	50	116	33	84	33	100	13	29	13	16	7	22	597	46	643
Average Production.	483	129	58	42	115	30	82	27	93	8	27	12	16	8	21	576	44	620
Average Percentage.	83.7	22.3	10.4	7.2	19.7	5.2	14.2	4.7	16.3	1.6	4.7	2.1	2.8	1.3	3.8	100.0	..	..
1936-37†	467	134	62	35	101	28	78	29	93	8	23	13	17	7	22	560	44	604
1937-38	..	(a)	130	63	44	(a)	117	(a)	(a)	(a)	23	13	17	8	(a)	39	(a)	..

*Estimated production as compiled from marketing survey enquiries.

†Provisional figures.

‡In 1936-37, comprise of 51,000 tons in Bihar and 11,000 tons in Orissa and in 1937-38, 52,000 tons in Bihar and 11,000 tons in Orissa,

(a) Figures not yet available.

APPENDIX VI.

Estimates of area (in acres) under different types of tobacco grown in India and Burma in 1934-35.

Provinces or State.	Nicotiana Tabacum.						Nicotiana Rustica.				Grand Total.					
	Cigarette (Virginiæ).	Cigarette (Country).	Cigar.	Cherooot.	Bidi.	Chewing.	Hookah, Chillum etc.	Snuff.	Total.	Hookah.	Chewing.	Snuff.	Total.			
<i>British India.</i>																
Assam	6,269	..	6,269	6,268	..	..	6,268	12,537		
Bengal	10	8,990	..	1,000	194,570	500	205,070	102,000	530	..	102,530	307,600	
Bihar and Orissa	4,610	..	..	4,590	43,352	25,373	..	77,925	38,017	17,158	..	55,175	133,100	
Bombay	122	..	..	122,501	22,272	11,136	178,303	1,000	..	500	1,500	179,803		
Central Provinces and Berar	3,873	11,618	..	15,491	..	..	..	..	15,491	
Delhi	1,296	..	..	..	1,296	1,296	
Madras	..	40,000	65,000*	5,000	107,500	3,000	67,300	..	3,200	291,000	1,000	..	1,000	292,000		
North West Frontier Province.	5,628	..	8,430	14,058		
Punjab	71,893	..	71,893	13,983	..	1,943	15,926	87,819	
Sind	250	..	..	..	..	4,577	..	4,827	..	..	..	..	4,827	
United Provinces	100	60	1,861	13,030	..	15,051	74,624	10,661	..	85,285	100,336
Ajmere-Merwara	28	..	..	28	28	
Coorg	9	..	..	..	..	..	9	
Total British India	..	40,472	69,910	5,010	116,490	130,151	139,667	349,602	14,836	865,838	243,844	28,349	10,873	283,066	1,148,904	

* This figure of 65,000 acres refers to area in Guntur District (Madras) and is only a very rough approximate as the leaf is used extensively for making cheroots whenever there is less or no demand for it from manufacturers of cigarettes and cut and pipe tobaccos.

Estimates of area (in acres) under different types of tobacco grown in India and Burma 1934-35.

APPENDIX VI—concl'd.

Province or State.	Nicotiana Tabacum.						Nicotiana Rustica.				Grand Total.		
	Cigarette (Viri- gini- e).	Ciga- rette (Conn- try).	Cigar.	Cheroot.	Bidi.	Chewing.	Hookah, Chillum, etc.	Snuff.	Total.	Chewing.	Snuff.	Total.	
<i>Indian States.</i>													
Baroda	29,923	6,000	21,510	1,937	59,370	..	..	..	59,370
Cooch Behar	2,500	..	200	36,200	100	39,000	18,800	200	..	19,000
Central India States	9,000	..	..	9,000
Deccan States and Kolha- pur.	34,974	6,532	6,532	3,266	61,304	1,000	..	..	1,000
Gujerat and W. I. States	200	..	..	..	200	..	..	..	..
Gwalior	8,356	..	..	8,356
Nizam's Dominions	6	..	9,964	23,696	2,000	38,835	..	74,501	..	..	..	74,501
Kashmir	50	50	3,660	..	200	3,860
Madras States	31	..	31	..	..	..	..
Mysore ..	100	..	..	..	..	..	12,025	9,887	..	634	22,646	..	..
Punjab and Sind States	2,763	..	2,763	6,331	..	..
Rajputana States	13,400	..	..	13,400
United Provinces States	1,400	..	..	1,400
<i>Total Indian States ..</i>	100	6	..	12,464	100,818	24,650	105,890	5,937	249,865	61,947	200	200	62,347
<i>Total India ..</i>	40,572	69,616	5,010	128,954	230,969	164,317	455,492	20,773	1,115,703	305,791	28,549	11,073	345,413
<i>Burma ..</i>	84,000	13,000	5,000	..	102,000	..	..	..	102,000

APPENDIX VII.

Estimates of production (in thousand pounds) of different types of raw tobacco produced in India and Burma in 1934-35.

Provinces or States.	Nicotiana Tabacum.						Nicotiana Rustica.						Grand Total.		
	Cigarette (Virgini- nia).	Giga- rette (Coun- try).	Cigar.	Cheroot.	Bidi.	Chewing Chiltam, etc.	Hookah, Chiltam, etc.	Snuff.	Total.	Hookah.	Chewing.	Snuff.	Total.		
<i>British India.</i>															
Assam	7,021	..	7,021	7,020	..	..	7,020	14,041	
Bengal	10	9,422	..	1,048	203,909	524	214,913	106,996	655	..	107,451	322,364
Bihar and Orissa	3,895	..	..	3,878	36,625	22,458	..	66,856	31,715	13,887	..	45,602	112,458
Bombay	73	..	..	73,746	13,408	6,704	107,339	602	..	301	903	108,242	
Central Provinces and Berar.	2,436	7,308	..	9,744	..	..	..	..	9,744
Delhi	3,305	..	..	3,305	3,305
Madras	..	26,480	68,770*	5,034	107,062	3,150	70,142	..	3,360	283,998	1,050	..	1,050	285,948	
North West Frontier Province.	13,507	..	20,232	33,739	33,739
Punjab	70,050	..	70,050	13,625	..	1,893	15,518	85,568
Sind	514	..	..	..	..	7,534	..	8,048	..	..	..	..	8,048
United Provinces	..	70	..	..	..	36	4,234	29,643	..	33,983	169,770	24,254	..	194,024	228,007
Ajmere-Merwara	28	..	..	28	28
Coorg	4	..	..	4	..	..	..	..	4
<i>Total British India</i>	27,137	72,665	5,044	116,484	80,810	127,897	361,331	10,588	801,956	347,518	38,696	22,426	408,640	1,210,596	

* This refers to production in Guntur District (Madras) and is only a very rough approximate as the leaf is used extensively for making cheroots whenever there is less or no demand for it from manufacturers of cigarettes and cut and pipe tobacco.

APPENDIX VII—*concl'd.*

APPENDIX VIII.

NICOTIANA TABACUM.

Estimates of area (in acres) under different types of tobacco in India and Burma classified according to the methods of curing (1934-35).

Province or State.	Cigarette (Virginia).			Cigarette (Country).			Cigar.			Cheroot.		
	Flue cured.	Rack cured.	Districts.	Flue cured.	Rack cured.	Districts.	Flue cured.	Rack cured.	Districts.	Flue cured.	Rack cured.	Districts.
Bengal 90	.. 32	.. Satara	..	..	..	..	..	.. Rangpur	..	.. Rangpur.
Bombay
Bihar and Orissa.
Madras	..	38,000	2,000	3,250	61,750	..	..	..	..	..	..	..
Sind	..	250	..	..	..	..	..	..	..	..	..	..
U. P.	..	100	..	..	..	..	..	..	..	..	..	..
Cooch Behar
Nizam's Domains.
Mysore	..	100	..	..	..	..	..	..	..	..	..	..
Total.	..	38,540	2,032	..	3,250	61,756	4,610	..	..	..	..	..
Burma

Toungoo,
Pegu
Thayetmyo
Kynukpyu
and Burma
generally.

APPENDIX
NICOTIANA

Estimates of area (in acres) under different types of tobacco grown

Province or State.	Bidi.			Chewing.			
	Rack cured.	Ground cured.	Districts.	Rack cured.	Ground cured.	Pit cured.	Districts.
<i>British India.</i>							
1. Assam ..	..	..	..	..	..	..	..
2. Bengal ..	..	..	..	226	774	..	Rangpur and Jalpaiguri.
3. Bihar and Orissa ..	..	4,590	..	..	43,352	..	Muzzafarpur and Purnea.
4. Bombay ..	2,750	119,751	Kaira, Belgaum, Satara, Ahmedabad and Broach.	2,000	10,272	10,000	Kaira, Belgaum, Satara and Broach.
5. C. P. and Berar ..	..	..	..	..	2,905	968	Bilaspur, Saugor, Amroati, Chhindwara and Buldhana.
6. Madras ..	..	3,000	..	28,266	28,266	10,768	Coimbatore, Trichinopoly, Madura, Nellore, S. Kanara and Ganjam.
7. Punjab ..	..	..	..	..	..	..	..
8. Sind ..	..	..	..	..	..	..	..
9. U. P. ..	..	..	60 Farukhabad	..	1,861	..	Sitapur, Bara Banki, Gorakhpur and Bahraich.
10. Coorg ..	..	..	..	9	..	..	..
11. Total British India.	5,750	124,401	..	30,501	87,430	21,736	..
<i>Indian States.</i>							
12. Baroda ..	3,000	26,923	Baroda Dt., (Petlad Taluka) and Mehsana Dt.	2,000	4,000	..	Petlad Taluka.
13. Cooch Behar ..	..	..	..	..	200	..	Cooch Behar
14. Deccan States and Kolhapur.	1,600	33,374	Sangli, Miraj and Kolhapur.	..	5,232	1,300	Sangli, Miraj and Kolhapur.
15. Gujarat and W.I. States.	..	200	..	..	..	..	..
16. Nizam's Dominions.	4,750	18,946	Bider, Gulbarga, Mahoobnagar Osmanabad, etc.	1,200	800	..	Bider, Gulbarga, Osmanabad Mahoobnagar, etc.
17. Kashmir ..	..	..	..	..	..	..	..
18. Madras States ..	..	..	..	31	..	..	..
19. Mysore ..	..	12,025	Mysore and Hassan	9,887	..	..	Tumkur, Kolar and Chitaldrug.
20. Punjab and Sind States.	..	..	..	..	..	..	..
21. Total Indian States.	9,350	91,468	..	13,118	10,232	1,300	..
22. Total India ..	15,100	215,869	..	43,619	97,662	23,036	..
23. Burma ..	..	13,000	..	..	5,000	..	..

VIII—contd.

TABACUM.

in India and Burma classified according to the methods of curing (1934-35).

APPENDIX VIII—*concl.*

Nicotiana Rustica.

Estimates of area (in acres) under different types of tobacco grown in India and Burma classified according to the methods of curing (1934-35).

Province or State.	Hookah			Chewing.			Snuff.			
	Rack-cured.	Ground-cured.	Pit-cured.	Districts.	Rack-cured.	Ground-cured.	Pit-cured.	Rack-cured.	Pit-cured.	Districts.
<i>British India.</i>										
Assam	6,268	..	Goalpara, Kamrup, etc.	..	..	..	..	..
Bengal	25,500	76,500	All over Bengal but chiefly Rangpur.	..	530	..	..	..
Bihar and Orissa	38,017	..	..	17,168	..	..	..	..
Bombay	1,000	..	Kaira, Satara, Bel- gaum.	..	..	..	500	Kaira, Satara and Belgaum.
Delhi	1,296	..	Delhi	..	..	..	..	..
Madras	1,000	..	Godavari..	..	..	..	..	..
N. W. P. Province	6,628	..	Peshawar, Mardan and Bannu.	..	..	..	8,430	Peshawar and Mar- dan.
Punjab	13,983	..	Hoshiarpur, Attock, Gurgaon, etc.	..	..	..	1,943	Attock.

United Provinces	..	..	74,624	..	Farukhabad, Ba- dawn, Jaunpur, Etah, Aligarh, etc.	..	10,661	..	Farukhabad, Ba- dawn, Jaunpur, Etah, etc.
Ajmer-Merwar	..	..	28	..	..	..	..	..	..
Total British India	..	32,768	211,076	..	..	28,349	..	..	10,873
<i>Indian States.</i>									
Cooch Behar..	..	4,700	14,100	..	Cooch Behar	..	200	..	Cooch Behar
Central India States ..	..	..	9,000	..	..	..	..	..	..
Deccan States and Kol- hapur.	..	..	1,000	..	..	..	..	..	..
Gwalior	..	..	8,356	..	..	..	..	..	..
Kashmir	..	..	3,660	..	..	..	..	..	200
Punjab and Sind States	..	..	6,331	..	..	..	..	..	..
Rajputana States	..	..	13,400	..	..	..	..	..	..
United Provinces States	..	..	1,400	..	..	..	..	..	..
Total Indian States ..	..	4,700	57,247	..	..	..	200	..	200
Total India ..	..	37,468	268,323	..	..	..	28,549	..	11,073

APPENDIX IX.

NICOTIANA TABACUM.

Estimates of production (in thousand pounds) of different types of raw tobacco in India and Burma classified according to the methods of curing (1934-35).

APPENDIX IX—*contd.*

NICOTIANA TABACUM.

Highest of production (in thousand pounds) of different types of raw tobacco in India and Burma classified according to the methods of curing (1934-35).

Province or State	Bidhi.			Chowring.			Hookah, Chillum, etc.			Snuff.		
	Rack-cured.	Ground-cured.	Rack-cured.	Ground-cured.	Pit-cured.	Rack-cured.	Ground-cured.	Pit-cured.	Rack-cured.	Ground-cured.	Pit-cured.	
Assam	7,021	..	..	..	..	..
Bengal	237	811	46,100	167,809	..	524	..	..
Bihar and Orissa	3,878	..	36,625	..	22,458	..	..	..	..
Bombay	1,655	72,091	1,204	6,184	6,020	121	12,077	1,210	301
C. P. and Berar	1,827	609	..	5,482	1,826	..
Madras	3,150	..	29,469	29,469	11,204	..	..	..	3,360
Punjab	21,015	49,035	..	..
Sind	7,534	..	..
U. P.	36	..	4,234	..	..	29,643	..	..
Coorg	4	..	..	..	..	..	..
Total British India	..	4,805	76,005	30,914	79,150	17,833	53,242	256,018	52,071	4,185	6,403	..

APPENDIX IX.—*contd.*

NICOTIANA TABACUM.

Estimates of production (in thousand pounds) of different types of raw tobacco produced in India and Burma classified according to the methods of curing (1934-35).

Province and States.	<i>Bitti.</i>		<i>Chewing.</i>		<i>Hookah, Chilam, etc.</i>		<i>Snuff.</i>	
	Rack-cured.	Ground-cured.	Rack-cured.	Ground-cured.	Pit-cured.	Ground-cured.	Pit-cured.	Ground-cured.
<i>Indian States.</i>								
Baroda	11,685	868	1,736	..	4,340
Cooch Behar	210	..	8,468
Deccan States and Kolhapur	1,033	20,021	..	2,911	1,021	..
Gujrat and W. India States	87	..	..	..	3,450
Nizam's Dominions	2,327	9,284	588	392	..	19,029
Kashmir
Madras States	28	..	..	..
Mysore	7,696	8,404	..	..	..
Punjab and Sind States	1,510	3,021
Total Indian States	4,662	48,773	9,888	5,249	1,021	12,808
Total India	9,467	124,778	40,802	84,399	18,854	66,050
Burma	12,870	..	4,950	..	..

APPENDIX IX—contd.

NICOTIANA RUSTICA.

Estimates of production (in thousand pounds) of different types of raw tobacco in India and Burma classified according to the methods of curing (1934-35).

Province or State.	Hookah.			Chewing.			Snuff.		
	Rack-cured.	Ground-cured.	Pit-cured.	Rack-cured.	Ground-cured.	Pit-cured.	Rack-cured.	Ground-cured.	Pit-cured.
<i>British India.</i>									
Assam	7,020	..	..	..	..	..
Bengal	26,724	80,172	..	555	..	..
Bihar and Orissa	31,715	..	13,887	..	..
Bombay	602	..	..	..	301
Delhi	3,305	..	..	..	..
Madras	1,050	..	..	..	..	..
N. W. F. P.	13,507	..	..	..	20,232
Punjab	13,625	..	..	..	1,893
U. P.	169,770	..	24,254	..	..
Ajmere-Merwara	28	..	..	..	..
Total British India	34,704	312,724	..	..	38,096	..	..	..	22,426

APPENDIX IX—concl'd.

NICOTIANA RUSTICA.

Estimates of production (in thousand pounds) of different types of raw tobacco in India and Burmah classified according to the methods of curing (1934-35).

Province or State.	Hookah.			Chewing.			Snuff.		
	Rack-cured.	Ground-cured.	Pit-cured.	Rack-cured.	Ground-cured.	Pit-cured.	Rack-cured.	Ground-cured.	Pit-cured.
<i>Indian States.</i>									
Cooch Behar	..	4,926	14,776	..	..	210	..	..	..
Central India States	9,000	..	..	..	..	..	..
Deccan States and Kolhapur	602	..	..	..	..	..	..
Gwalior	8,356	..	..	..	..	..	..
Kashmir	2,928	..	..	..	..	..	..
Punjab and Sind States	6,331	..	..	..	..	..	..
Rajputana States	13,400	..	..	..	..	..	..
U. P. States	2,686	..	..	..	..	..	..
Total Indian States	..	4,926	58,079	..	..	210	..	..	160
Total India	..	39,720	370,803	..	..	38,906	..	..	22,586

APPENDIX X.

Statement showing the normal periods of sowing, transplanting, harvesting and marketing of different types of tobacco grown in important areas of India and Burma.

Districts.	Species.	Variety.	Sowing.	Transplanting.	Harvesting.	Marketing.
1. CIGARETTE.						
Guntur (Madras)	N. tabacum	Virginia	August-September	Oct.-Nov.	Dec.-Feb.	January-March.
	Do.	Country or Desi	Do.	Do.	Do.	April-June.
Saharanpur (U. P.)	Do.	Virginia	April-May	June	September	October-November.
Jhansi (U. P.)	Do.	Do.	Do.	Do.	Do.	Do.
Mysore State	Do.	Virginia (1st season).	April	June	October	November-January.
	Do.	Virginia (2nd season).	May	July	December	January.
2. CIGAR AND CHEROOT.						
Guntur (Madras)	Do.	Cheroot (Desi)	August-September	Sept.-Nov.	Dec.-Feb.	Feb.-July.
Vizagapatam (Madras)	Do.	Do.	Sept.-Oct.	Nov.-Dec.	Jan.-March	April-Sept.
East & West Godavari (Madras).	Do.	Lankas Cheroot	Do.	Do.	Do.	Do.
Kistna (Madras)	Do.	Do.	Do.	Do.	Do.	Do.
Coimbatore (Madras)	Do.	Cheroot	August	Oct.-Nov.	Jan.-Feb.	March-May.

APPENDIX X—*contd.*

Statement showing the normal periods of sowing, transplanting, harvesting and marketing of different types of tobacco grown in important areas of India and Burma.

Districts.	Species.	Variety.	Sowing.	Transplanting.	Harvesting.	Marketing.
2 CIGARS AND CHEROOT— <i>contd.</i>						
Madura (Madras)	N. tabacum	Cheroot	Sept.-Oct.	Nov.-Dec.	Feb.-March	May-July.
Trichinopoly (Madras)	Do.	Do.	Do.	Do.	Do.	Do.
Warangal (Nizam's Dominions).	Do.	Guntur type	August	November	March	May.
Hyderabad State	Do.	Local	July-August	Sept.-Nov.	Jany.-March	March-May.
Rangpur (Bengal)	Do.	Jati	September	Oct.-Nov.	February-April	May-October.
Thayetmyo (Burma)	Do.	Burmese Havana Cheroot type.	September-Oct.	Dec.-Jany.	April-May	May-July.
Toungoo (Burma)	Do.	Shwesgyin Cheroot type.	Do.	Do.	Do.	Do.
Upper Burma dry zone district	Do.	Kunywahse Torch light cheroot.	Do.	Do.	Do.	Do.
3. Birri.						
Salem (Madras)	Do.	Local type	August-Sept.	October	January	March-August.
S. Kanara (Madras)	Do.	Do.	September-Oct.	Nov.-Dec.	Feb.-March	March-July.
Gulberga & Raichur in Hyderabad State.	Do.	Sulehpeti	July	September	January	March.

Time	Temp.	Humidity	Wind	Clouds	Pressure	Barometric Trend
0600	70°	70%	N 10° E	Scattered	29.96	Up
0700	72°	72%	N 10° E	Scattered	29.94	Up
0800	74°	74%	N 10° E	Scattered	29.92	Up
0900	76°	76%	N 10° E	Scattered	29.90	Up
1000	78°	78%	N 10° E	Scattered	29.88	Up
1100	80°	80%	N 10° E	Scattered	29.86	Up
1200	82°	82%	N 10° E	Scattered	29.84	Up
1300	84°	84%	N 10° E	Scattered	29.82	Up
1400	86°	86%	N 10° E	Scattered	29.80	Up
1500	88°	88%	N 10° E	Scattered	29.78	Up
1600	90°	90%	N 10° E	Scattered	29.76	Up
1700	92°	92%	N 10° E	Scattered	29.74	Up
1800	94°	94%	N 10° E	Scattered	29.72	Up
1900	96°	96%	N 10° E	Scattered	29.70	Up
2000	98°	98%	N 10° E	Scattered	29.68	Up
2100	100°	100%	N 10° E	Scattered	29.66	Up
2200	102°	102%	N 10° E	Scattered	29.64	Up
2300	104°	104%	N 10° E	Scattered	29.62	Up
2400	106°	106%	N 10° E	Scattered	29.60	Up

APPENDIX X—*contd.*

Statement showing the normal periods of sowing, transplanting, harvesting and marketing of different types of tobacco grown in important areas of India and Burma.

Districts.	Species.	Variety.	Sowing.	Transplanting.	Harvesting.	Marketing.
4. HOORAH— <i>contd.</i>						
Sitapur (U. P.)	N. rusticæ	Calcuttia	September-Oct.	October-Nov.	March-April	After harvest throughout the year.
Jaunpur (U. P.)	Do.	Vilayati	Do.	Do.	February-May (2 cuttings).	Do.
Ajodhya (U. P.)	Do.	Calcuttia	August	Sept.-Nov.	February-March	Do.
Rangpur (Bengal)	Do.	Motihari	October	Nov.-Dec.	March-April	June-October.
Rajshahi (Bengal)	Do.	Motihari	September	November	March	August-Sept.
Midnapore (Bengal)	N. tabacum	Desi	August	September	January	January-March.
Nadia (Bengal)	N. rusticæ	Vilayati	September-Oct.	October-Nov.	February-March	April-May.
Rangpur (Bengal)	N. tabacum	Bhergi	September	Do.	February-April	May-October.
Do.	Do.	Naokhol	Do.	Do.	Do.	Do.
Nawabshah and Hyderabad (Sind).	Do.	Karo & Acho (mostly Karo).	June	July-August	January-Feb.	June-August.
Dadu (Sind)	Do.	Karo & Acho 1st crop.	October	November	March-April	July-August.
Do.	Do.	Karo & Acho 2nd crop. <i>Desi</i>	September-Oct.	No transplanting	February-April	Do.
Khairpur State	Do.		October-Nov.	December	April-May	June and July.

APPENDIX X—concl'd.

Statement showing the normal periods of sowing, transplanting, harvesting and marketing of different types of tobacco grown in important areas of India and Burma.

Districts.	Species.	Variety.	Sowing.	Transplanting.	Harvesting.	Marketing.
Kistna (Madras)	N. tabacum	Local	Sept.-Oct.	Nov.-Dec.	January-March	April-Sept.
S. Kanara (Madras)	Do.	Do.	Do.	Do.	Feb.-March	March-July.
Punjab	N. rustica	Gobhi	Nov.-Dec.	March	May	June-Sept.
Mysore State	N. tabacum	Local	July-August	Sept.-Oct.	Nov.-Dec.	January-May.
North-West Frontier Province	N. rustica	Nasvari (Kandhari)	Nov.-Dec.	February	June	June-August.

APPENDIX XI.

Imports of unmanufactured and manufactured tobacco through the Ports of British India and Burma from Empire and Foreign Countries.

Period.	Quantity in pounds.					Value in rupees.						
	Unmanufactured tobacco.	Cigarettes.	Cigar.	Tobacco for pipes and cigarettes.	Other sorts of manufactured tobacco.	Total.	Unmanufactured tobacco.	Cigarettes.	Cigars.	Tobacco for pipes and cigarettes.	Other sorts of manufactured tobacco.	Total.
1925-26	..	4,906,908	3,411,975	39,727	276,050	36,830	8,671,491	33,79,762	1,58,81,721	2,05,277	17,02,957	1,65,826
1926-27	..	5,703,449	4,174,711	33,002	256,570	37,422	10,205,164	41,48,045	1,94,61,148	1,66,769	16,37,537	1,97,110
1927-28	..	3,984,951	5,695,966	35,973	254,257	56,898	9,938,045	32,01,052	23,99,6319	2,00,864	15,16,088	2,18,023
1928-29	..	6,760,716	4,932,083	34,490	217,694	29,589	11,934,572	57,42,364	2,00,90,260	1,74,218	13,15,435	1,37,251
1929-30	..	4,551,848	5,282,905	39,563	223,253	32,901	10,130,610	39,71,521	2,13,16,574	1,75,014	13,56,941	1,50,940
	{ Amount	5,181,574	4,683,540	36,549	245,565	38,746	10,185,974	40,88,549	2,01,49,204	1,84,428	15,05,804	1,73,830
Average		50.9	46.0	0.3	2.4	0.4	100.0	15.7	77.2	0.7	5.8	0.6
	{ Amount	1,608,381	3,059,692	32,514	189,648	39,762	4,929,987	14,39,646	1,22,48,144	1,59,546	10,88,627	1,79,846
		..	2,844,919	21,358	129,333	45,766	4,477,456	29,85,659	52,77,764	1,03,667	8,54,637	2,13,050
1930-31	..	5,115,672	831,571	15,030	48,629	6,051,631	62,27,028	28,94,977	85,284	3,06,202	1,80,106	94,34,454
1931-32	..	4,187,024	592,995	17,146	50,391	46,981	4,834,537	47,27,430	19,05,632	73,569	3,00,474	2,07,516
1932-33	..	2,977,050	614,366	11,618	61,553	36,936	3,701,523	33,56,673	22,21,190	60,971	3,91,497	1,52,108
1933-34	..	3,346,609	1,306,921	19,533	42,033	4,811,027	37,47,287	49,09,541	96,607	5,88,221	1,86,526	95,28,183
1934-35	..	69.6	27.2	0.4	1.9	0.9	100.0	39.3	61.5	1.0	6.2	2.0
	{ Amount	1,020,692	831,412	12,818	50,550	43,260	2,858,732	27,84,754	28,10,046	69,911	3,20,356	1,70,985
		..	3,282,945	919,099	13,871	57,720	33,166	4,306,810	44,76,720	31,60,281	61,338	2,36,353
1935-36	..	3,060,686	1,084,204	22,434	59,150	40,836	4,267,310	41,45,079	37,22,407	70,721	3,44,510	1,53,284
1936-37
1937-38*

*Provisional figures.

APPENDIX XII.

Sources of imports of unmanufactured tobacco into India and Burma.

1935-36	358,144	3,768	361,912	44,307	5,755	1,500,609	8,109	1,558,780	1,920,692	
1936-37	169,991	3	169,994	26,400	7,017	3,060,713	18,812	3,112,951	3,282,945	
1937-38*	..	37,668	11,622	49,290	32,674	5,738	2,965,623	7,361	3,011,396	3,060,686	
		Rs.	Rs.	Rs.	Rs.	Value.	Rs.	Rs.	Rs.	Rs.	
1930-31	32,789	340	33,129	1,19,527	12,756	12,52,726	21,508	14,06,517	14,39,646	
1931-32	3,03,993	4,350	3,08,343	67,646	5,187	24,39,194	1,65,289	26,77,316	29,85,659	
1932-33	4,08,139	2,727	4,10,866	1,26,933	16,418	56,43,634	29,177	58,16,162	62,27,028	
1933-34	20,16,117	12,510	20,27,627	61,673	9,282	~ 26,10,679	18,169	26,99,803	47,27,430	
1934-35	7,93,852	20,148	8,14,000	48,154	7,740	24,78,459	8,320	25,42,673	33,56,673	
Average	{	Amount		7,10,778	8,016	7,18,793	84,787	10,277	28,84,938	48,492	
	Per cent	19.0	0.2		19.2	2.3	0.3	76.9		1.3	80.8
1935-36	3,72,874	3,242	3,76,116	56,899	7,675	23,30,711	13,353	24,08,638	27,84,754	
1936-37	1,60,902	3	1,60,905	34,075	13,522	42,41,591	26,627	42,15,815	44,76,720	
1937-38*	..	48,784	10,326	59,110	41,407	12,035	40,22,460	10,067	40,85,969	41,45,079	

*Provisional.

APPENDIX XIII.

Average monthly export and import trade by sea through the ports of British India and Burma in unmanufactured tobacco and principal tobacco products.

(Average for 5 years ending 1934-35).

(Quantity in lb.).

September	..	297,151	54,115	1,330	5,269	1,767,663	20,164	7,356
October	..	264,982	88,199	1,776	5,838	2,262,704	24,754	9,105
November	..	242,570	89,405	2,700	3,262	2,050,063	19,808	9,968
December	..	182,264	103,299	2,528	7,389	1,618,346	23,487	9,664
January	..	576,872	134,572	2,060	8,606	1,450,675	20,462	7,478
February	..	396,347	116,232	895	8,928	1,631,967	26,599	6,976
March	..	180,577	108,674	1,222	9,632	1,792,671	34,157	11,085
Total	..	3,346,462	1,305,929	19,533	95,930	25,969,140	296,301	112,402

APPENDIX XIV.

Sources of imports of cigarettes into India and Burma.

Period.	Empire Countries.				Foreign Countries.				Imported from			
	United Kingdom.	Straits Settlements.	Hong-Kong.	Other Empire Countries.	Total Empire Countries.	China (excluding Hongkong & Macao).	Japan.	Egypt.	U. S. A.	Other Foreign Countries.	Total Foreign Countries.	
1930-31	2,840,434	4,236	16,448	14,414	2,875,532	143,892	784	4,212	34,033	1,239	184,160	3,059,692
1931-32	1,189,659	10,752	10,477	4,898	1,215,786	193,778	74	9,446	16,265	631	220,194	1,435,980
1932-33	720,790	6,793	4,120	2,644	734,347	52,564	26,705	3,775	11,966	2,214	97,224	831,571
1933-34	474,934	106	16,893	2,237	494,170	5,688	74,260	2,999	13,004	2,874	98,825	592,995
1934-35	556,567	895	19,314	5,340	582,106	6,356	6,141	4,184	14,072	1,507	32,260	614,366
Average	1,156,474	4,556	13,450	5,908	1,180,388	80,457	21,591	4,923	17,868	1,693	126,532	1,306,920
	88.5	0.3	1.0	0.5	~ 90.3	6.1	1.7	0.4	1.4	0.1	9.7	100.0

*Provisional.

(a) Not available.

APPENDIX XV.

Sources of imports of cigars into India and Burma.

Period.	Empire Countries.		Imported from				Total.					
			Foreign Countries.		Foreign Countries.		Total Foreign Countries.	lb.				
	United Kingdom.	Hong-Kong.	Other Empire Countries.	Total Empire Countries.	Philippines.	Germany	Nether-lands.	Other Foreign Countries.				
1930-31	..	..	1,721	862	673	3,256	21,315	338	6,062	1,540	29,258	32,514
1931-32	..	..	740	499	1,089	2,328	14,071	285	3,306	1,368	19,030	21,358
1932-33	..	..	441	147	94	682	10,628	341	2,301	1,078	14,348	15,030
1933-34	..	..	699	676	986	2,361	9,720	306	2,109	2,650	14,785	17,146
1934-35	..	..	606	887	1,493	7,485	59	1,761	820	10,125	11,618	
Average	{ quantity	..	841	1,183	2,024	12,644	266	3,108	1,491	17,509	19,533	
	{ Per cent.	..	4.3	6.1	10.4	64.7	1.4	15.9	7.6	89.6	100.0	

1935-36	..	..	455	561	1,016	8,704	50	2,418	630	11,802	12,818
1936-37	..	..	671	674	1,245	9,618	3,008	..	..	12,626	13,871
1937-38*	..	..	10,867	477	11,344	8,756	2,384	..	..	11,090	22,434
					Value.						
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1930-31	..	..	22,799	4,589	2,432	20,820	83,561	1,920	38,117	6,128	1,29,726
1931-32	..	..	11,961	2,521	1,007	15,489	57,523	1,803	20,597	8,255	88,178
1932-33	..	..	7,390	746	341	8,477	49,592	1,820	18,672	6,723	76,807
1933-34	..	..	9,982	2,473	968	13,423	31,032	2,100	16,056	10,958	60,146
1934-35	..	..	6,645	3,150	975	28,925	572	16,293	5,386	51,176	73,569
											60,971
Average	{	amount	..	11,755	3,645	15,400	50,127	1,643	21,947	7,490	81,207
	,	Per cent.	..	12.1	3.8	15.9	51.9	1.7	22.7	7.8	84.1
1935-36	..	..	6,600	2,414	9,014	32,660	483	17,774	9,980	60,897	69,911
1936-37	..	..	7,618	2,766	10,384	32,229	18,725	..	..	50,954	61,338
1937-38*	..	..	16,571	1,581	18,152	33,087	19,482	..	..	52,569	70,721

*Provisional.

APPENDIX XVI.

Sources of imports of manufactured tobacco for pipes and cigarettes into India and Burma.

APPENDIX

*Monthly export and import trade in tobacco at stations adjacent to
(In*

Months.	I M P O R T.								
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	Average	1935-36.	1936-37.	1937-38*
April	8,873	9,346	10,285	13,619	5,686	9,562	18,836	9,832	7,122
May	11,235	9,982	17,516	11,576	16,458	13,353	15,061	9,954	12,829
June	22,300	14,792	17,502	19,388	13,234	17,443	14,161	14,257	22,799
July	24,985	18,524	22,044	5,268	6,723	15,509	14,513	19,336	23,061
August	8,066	6,293	17,407	8,370	3,755	8,778	10,514	12,892	10,836
September	10,918	5,377	14,921	7,001	1,928	8,030	11,662	8,421	4,938
October	8,702	8,347	9,834	7,331	2,519	7,347	7,399	6,108	5,623
November	7,113	11,513	7,517	7,177	4,175	7,499	5,943	4,613	6,348
December	6,195	9,084	6,208	5,776	2,426	5,938	7,161	3,765	6,014
January	4,548	8,006	2,718	1,852	2,264	3,878	5,064	4,689	4,081
February	2,201	4,759	3,708	1,973	2,134	2,955	3,004	2,885	4,852
March	4,200	6,243	6,914	3,372	9,099	5,963	3,646	3,058	5,969
Total	119,336	112,266	136,574	92,706	70,401	106,255	116,964	99,810	114,472
Block A*	7,411	7,730	3,894	3,591	6,467	5,819	8,484	5,438	4,448
Block B*	71,495	76,468	86,717	41,453	24,615	60,148	64,384	63,199	68,085
Block C*	40,430	28,068	45,963	47,662	39,319	40,288	44,096	31,173	41,939

*A. Block A comprises the rail route which bifurcates into the Nushki-Duzdap extension and the trade

*B. Block B comprises the trade through the North-West Frontier Province and the Punjab with

*C. Block C comprises the trade through the United Provinces, Bihar and Orissa, Bengal and Assam.

†Provisional.

XVII.

Land Frontier Routes in India.

(maunds).

E X P O R T.

1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	Average.	1935-36.	1936-37.	1937-38.†
8,068	12,882	13,677	13,372	6,752	10,950	9,341	9,847	9,994
12,321	12,436	6,803	11,450	10,423	10,687	11,012	13,789	11,989
18,842	16,066	12,802	10,983	10,790	13,897	10,339	9,359	12,903
20,427	18,649	15,300	12,074	13,931	16,076	12,962	12,807	11,525
9,490	10,669	8,700	7,651	9,543	9,211	8,166	9,001	8,006
9,366	11,470	10,248	7,993	8,425	9,500	8,294	8,220	7,166
8,839	9,876	9,475	8,030	10,986	9,441	9,395	11,364	8,575
8,593	10,279	8,832	10,342	9,685	9,546	11,833	9,126	8,252
7,707	10,207	8,404	9,181	11,315	9,363	13,666	7,722	8,174
9,106	8,131	5,357	5,779	6,489	6,973	8,404	8,612	6,481
5,258	5,322	4,400	4,214	5,848	5,010	6,666	5,696	5,081
7,520	7,803	8,167	5,533	6,429	7,090	7,821	6,047	6,965
125,537	133,790	112,174	106,602	110,616	117,744	117,892	110,870	105,112
5,271	7,227	5,397	,893	5,158	5,389	2,864	3,932	3,455
63,264	68,625	49,751	40,160	43,389	53,038	49,659	40,759	43,800
57,002	57,938	57,026	62,549	62,069	59,317	65 376	66,179	57,857

towards Kandahar. This block will include trade with Iran and Western and Southern Afghanistan. Northern and Eastern Afghanistan with Kashmir and through them with Central Asia and Turkistan, with Tibet, Nepal, Sikkim and Bhutan.

APPENDIX

Monthly export and import trade in tobacco at

(In

Months.	I M P O R T.								
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	Average	1935-36.	1936-37.	1937-38.†
April	23	115	437	691	27	258	..	444	619
May	23	116	213	286	1	128	..	..	93
June	641	677	1,168	812	338	727	92	912	950
July	401	33	702	949	569	531	764	..	2
August	35	11	136	334	8	105	27	..	2
September	43	68	4	376	99	118	..	..	..
October	6	23	46	143	14	46	..	..	8
November	201	50	70	157	3	96	..	..	1
December	978	72	115	148	370	336	..	..	6
January	27	658	33	75	..	159	..	130	15
February	99	285	118	1	1	101	276	..	35
March	676	361	295	58	..	278	1	35	47
Total	3,153	2,469	3,337	4,030	1,430	2,883	1,160	1,521	1,778
Block D*	2,511	1,687	1,639	1,437	1,362	1,727	1,095	1,521	1,648
Block E*	293	563	1,369	2,579	68	974	65	..	..
Block F*	349	219	329	14	..	182	..	..	130

*Block D.— At Bhamo, downward

*Block E.— At Lashio, Heho and

*Block F.— At Thingannyinginaung
Provisional.

XVIII.

stations adjacent to Land Frontier Routes in Burma.

maunds).

E X P O R T.

1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	Average.	1935-36.	1936-37.	1937-38
249	144	99	48	141	136	121	233	358
345	246	112	188	191	217	240	663	608
332	224	95	166	180	199	659	485	800
129	160	81	120	139	126	193	368	370
206	118	51	64	101	108	231	415	294
238	351	49	214	44	179	293	432	763
339	149	84	55	202	166	364	425	980
373	128	64	119	112	159	202	437	682
249	249	151	140	235	205	506	441	690
232	142	57	156	404	198	370	485	282
210	103	58	77	180	126	123	456	684
234	242	53	125	205	172	440	380	636
3,136	2,256	954	1,472	2,134	1,991	3,742	5,220	7,847
598	566	354	291	385	439	322	242	303
2,100	1,308	285	886	864	1,089	1,606	2,057	4,338
438	382	315	295	885	463	1,814	2,921	3,206

and upward traffic on the river.

Sbwenyayung, outward and inward traffic.

(formerly at Kawkareik), exports from and imports into Burma.

APPENDIX XIX.

Exports of unmanufactured tobacco through the ports of British India and Burma.

Period	Quantity (lb.).				Value (Rs.)				Total.
	Unmanufactured tobacco.	Oligars.	Cigarettes.	Other sorts of manufactured tobacco.	Total.	Unmanufactured tobacco.	Cigars.	Cigarettes.	
1925-26	..	37,193,250	403,109	144,687	307,023	38,048,069	1,05,08,396	3,68,862	1,11,40,017
1926-27	..	28,882,936	290,716	235,050	384,911	29,793,613	97,09,411	3,30,338	1,37,552
1927-28	..	28,087,669	281,502	288,155	589,163	29,246,489	98,57,840	3,01,319	1,65,931
1928-29	..	32,932,102	260,370	284,077	422,847	33,899,396	1,22,61,802	2,85,808	1,29,47,034
1929-30	..	25,972,767	280,604	292,910	523,075	27,069,356	99,48,397	2,98,724	1,06,42,057
Average	{ Amount	30,613,745	303,260	248,976	445,403	31,611,384	1,04,57,169	3,17,010	1,27,618
	{ Per cent	96.8	1.0	0.8	1.4	100.0	93.8	2.8	2.2
1930-31	..	21,970,510	219,762	342,087	560,273	29,002,632	96,72,541	2,45,663	3,16,445
1931-32	..	25,426,632	117,531	312,902	404,184	26,261,219	80,61,726	1,32,780	2,65,594
1932-33	..	20,892,804	89,917	264,361	375,338	21,622,650	73,40,821	95,050	2,12,351
1933-34	..	29,206,470	64,294	257,650	431,496	20,959,900	90,13,004	84,845	2,12,804
1934-35	..	26,349,287	70,491	304,503	652,803	27,377,084	77,55,253	85,542	2,51,022
Average	{ Amount	25,969,140	112,403	293,300	484,858	26,862,701	83,68,669	1,28,776	2,51,043
	{ Per cent	96.7	0.4	1.1	1.8	100.0	94.7	1.5	2.8
1935-36	..	28,742,628	73,356	328,575	453,541	29,598,100	87,95,686	1,01,108	2,85,278
1936-37	..	28,525,804	59,623	372,111	346,770	29,304,308	87,75,577	79,813	3,40,414
1937-38*	..	35,937,501	62,018	418,760	566,401	36,094,680	109,36,077	95,832	4,98,204

*Provisional.

APPENDIX XX.

Statement showing the exports of unmanufactured tobacco from the ports of different Indian provinces and Burma.

(Quantity in lb.)

Year.	Bengal.	Madras.	Bombay.	Sind.	Burma.	Total.
1925-26 ..	7,533,051	12,298,294	4,635,564	34,592	12,691,749	37,193,250
1926-27 ..	2,555,604	13,617,844	4,892,388	8,896	7,808,204	28,882,936
1927-28 ..	4,664,517	11,074,775	6,893,980	41,748	5,412,649	28,087,669
1928-29 ..	3,923,296	15,306,465	8,631,370	85,240	4,985,731	32,932,102
1929-30 ..	2,988,963	14,467,411	4,198,723	58,960	4,258,710	25,972,767
Average ..	4,333,086	13,352,958	5,850,405	45,887	7,031,409	30,613,745
1930-31 ..	4,196,332	15,961,580	5,176,343	47,036	2,589,219	27,970,510
1931-32 ..	2,846,324	14,524,910	4,298,679	30,992	3,725,727	25,426,632
1932-33 ..	2,587,607	12,281,094	4,875,207	6,570	1,142,316	20,892,804
1933-34 ..	2,500,915	19,850,085	5,605,810	14,392	1,235,268	29,206,470
1934-35 ..	2,192,668	16,328,174	6,024,942	21,000	1,782,503	26,349,287
Average ..	2,864,769	15,789,169	5,196,196	24,000	2,095,007	25,969,141
1935-36 ..	327,769	20,026,691	7,385,252	9,912	93,004	28,742,628
1936-37 ..	247,923	19,407,827	8,316,021	30,912	523,121	28,525,804
1937-38* ..	1,719,447	25,905,943	7,188,014	18,101	1,105,996	35,937,501

*Provisional.

Destinations of exports of unmanufactured tobacco from India and Burma.

1935-36	..	11,702,386	7,315,462	1,071,961	677,382	530,600	446,016	21,749,806	5,623,901	1,231,002	7,750	130,469	6,992,822	28,742,628
1936-37	..	13,298,043	8,336,328	1,112,922	766,183	4,800	621,901	24,140,237	3,000,237	1,121,332	19,030	224,968	4,385,567	28,525,804
1937-38*	..	21,231,200	7,182,288	1,202,468	791,882	481,164	1,188,898	32,077,850	2,316,650	1,348,247	15,073	174,681	3,859,651	35,937,501
Average amount.	Per cent.	38,89,230	19,65,352	5,15,460	2,54,462	98,994	91,640	68,15,147	11,09,770	2,73,204	51,508	1,19,038	15,53,520	83,68,667
1935-36	46.4	23.5	6.2	3.0	1.2	1.1	1.1	81.4	13.3	3.3	0.6	1.4	18.6	100.0
1936-37	..	45,35,274	22,24,075	3,60,540	1,92,677	30,706	1,46,662	74,79,934	10,78,291	2,01,467	1,795	34,199	13,15,752	87,95,686
1937-38*	..	50,58,506	20,45,654	3,40,844	2,19,765	249	2,11,952	78,76,970	6,49,890	2,08,206	3,410	37,101	8,98,607	87,75,577
		76,27,413	17,68,402	4,02,763	2,50,343	37,816	4,23,587	104,10,304	3,12,016	1,55,059	1,550	68,048	6,26,673	109,36,977

*Provisional.

APPENDIX XXII.

Statement showing the exports of cigars from the ports of different Indian Provinces and Burma.

(Quantity in lb.)

Year.	Bengal.	Madras.	Bombay.	Sind.	Burma.	Total.
1925-26 ..	3,234	75,279	9,363	106	315,127	403,109
1926-27 ..	60	67,141	11,311	28	212,176	290,716
1927-28 ..	142	67,069	7,396	5	206,890	281,502
1928-29 ..	62	66,328	5,490	..	188,490	260,370
1929-30 ..	30	68,913	6,026	2,344	203,291	280,604
Average ..	706	68,946	7,017	497	225,195	303,261
1930-31 ..	60	65,878	3,385	..	150,439	219,762
1931-32 ..	300	41,978	2,592	1,616	71,045	117,531
1932-33 ..	7,395	28,472	4,171	12	40,897	89,947
1933-34 ..	595	24,149	2,224	..	37,316	64,284
1934-35 ..	2,967	26,303	3,498	..	37,723	70,491
Average ..	2,263	37,356	3,174	326	69,284	112,403
1935-36 ..	280	18,892	2,658	..	51,520	73,356
1936-37 ..	..	19,943	2,483	1,938	35,259	59,623
1937-38* ..	11	21,030	4,162	..	36,215	62,018

*Provisional.

APPENDIX XXXIII.

Destinations of exports of cigars from India and Burma.

435

Period.	Exported to						Total. Foreign Countries.	
	Empire Countries.							
	United Kingdom.	Aden and Dependencies.	Ceylon.	Straits Settlements.	Other Empire Countries.	Total Empire Countries.		
	Ib.	Ib.	Ib.	Ib.	Ib.	Ib.	Ib.	
1930-31	45,449	6,875	12,447	116,090	3,607	184,268	20,581	
1931-32	..	24,375	2,495	11,855	58,662	2,168	99,555	
1932-33	..	29,266	3,909	17,679	27,810	1,840	80,504	
1933-34	..	34,133	4,769	11,983	6,312	1,107	58,304	
1934-35	..	37,144	4,552	7,984	11,512	3,580	64,772	
Aver- age.	34,073	4,480	12,389	44,077	2,460	97,479	2,377	
Per cent.	30.3	3.9	11.1	39.2	2.2	86.7	2.1	
1935-36	..	42,700	5,252	10,070	8,854	2,335	69,211	
1936-37	..	29,154	6,045	9,679	5,317	2,556	53,351	
1937-38*	..	32,646	4,128	11,250	4,033	3,229	55,286	

*Provisional.

APPENDIX XXXIII—contd.
Destination of exports of cigars from India and Burma.

Period.	Empire Countries.						Exported to Foreign Countries.						Total. Rs.	
	United Kingdom	Aden and Dependencies.	Ceylon.	Straits Settle- ments.	Other Empire Countries.	Total Empire Countries.	Value.	Rs.	Rs.	Siam.	Other Foreign Countries.	Total Foreign Countries.		
								Rs.	Rs.	Rs.	Rs.	Rs.		
1930-31.	..	64,311	9,101	14,518	1,09,682	6,844	2,04,456	4,703	19,687	16,820	41,210	2,45,666		
1931-32	..	32,259	2,939	13,276	58,269	3,848	1,10,591	2,668	4,042	15,479	22,189	1,32,780		
1932-33	..	36,091	5,239	15,046	24,088	3,272	83,736	5,248	822	5,244	11,314	95,050		
1933-34	..	47,514	6,088	16,320	4,615	1,830	76,367	2,193	292	5,993	8,478	84,845		
1934-35	..	47,126	6,726	11,609	7,958	2,919	76,338	5,276	12	3,916	9,204	85,542		
Aver- age.	{ Amount Per cent.	45,462	6,018	14,153	40,922	3,742	1,10,297	4,017	4,972	9,490	18,479	1,28,776		
		35·4	4·7	10·9	31·8	2·9	85·7	3·1	3·8	7·4	14·3	100·0		
1935-36	..	61,458	8,521	16,533	4,776	3,301	94,589	3,480	{ 3,129 3,326 2,784	{ 6,609 6,016 10,282	{ 1,01,198 79,813 95,882			
1936-37	..	40,785	9,941	16,982	2,193	3,896	73,797	2,690						
1937-38*	..	48,135	5,225	25,198	2,948	4,094	85,600	7,498						

*Provisional.

APPENDIX XXIV.

Destinations of exports of cigarettes from India and Burma.

437

Period.	Exported to				Total Foreign Countries.	Total
	Empire Countries.					
Ceylon.	Straits Settlements.	Federated Malay States.	Zanzibar and Pemba.	Other Empire Countries.	Ib.	Ib.
				Quantity.	Ib.	Ib.
1930-31	185,677	81,829	64,250
1931-32	121,483	92,993	86,853
1932-33	75,161	76,734	101,505
1933-34	140,962	44,456	68,223
1934-35	203,708	18,554	77,787
Average	{ Quantity	..	..	145,398	62,913	79,723
	Per cent.	..	..	49.1	21.2	26.9
1935-36	227,956	15,396	82,785
1936-37	291,507	7,649	67,284
1937-38*	320,333	5,087	47,406

*Provisional.

APPENDIX XXIV—concl'd.
Destinations of exports of cigarettes from India and Burma.

Period.	Exported to					Total.	
	Ceylon.	Straits Settlements.	Federated Malay States.	Zanzibar and Pemba.	Other Empire Countries.	Total Foreign Countries.	Rs.
				Value.			
			Rs.	Rs.	Rs.	Rs.	Rs.
1930-31	..	..	1,94,349	58,497	51,747	4,650	5,710
1931-32	..	..	1,19,875	66,401	70,268	5,150	4,100
1932-33	..	..	66,536	55,985	82,252	4,650	2,958
1933-34	..	..	1,13,725	31,995	63,156	2,400	1,487
1934-35	..	..	1,60,498	14,305	72,163	1,750	1,749
Average {	Amount ..	..	1,30,956	45,418	67,917	3,700	3,200
Per cent. ..	52.0	..	52.0	18.0	27.0	1.5	1.3
1935-36	..	..	1,93,793	10,110	78,078	1,600	1,582
1936-37	..	..	2,59,011	7,168	68,746	7,224	3,40,149
1937-38*	..	..	2,85,644	5,087	47,125	160,170	4,08,026
							115
							2,85,278
							265
							3,40,414
							178
							4,08,204

* Provisional.

APPENDIX XXV.

Re-exports of unmanufactured and manufactured tobacco from India and Burma.

439

Period.	Exported to			Manufactured Tobacco.		
	Unmanufactured Tobacco.		Total.	Empire Countries.		Foreign Countries.
	Empire Countries.	Foreign Countries.		lb.	lb.	lb.
1930-31	2,069	2,069	10,279
1931-32	2,489	2,489	15,195
1932-33	17,645	..	7,179
1933-34	10,201	8,411	18,612
1934-35	919	3,896	4,815
Average	Quantity	..	..	5,753	3,373	9,126
	Per cent.	..	..	63.0	37.0	100.0
1935-36	51,196	51,196	4,264
1936-37	440	4,290	4,730
1937-38*	47,140	361	47,501

* Provisional.

APPENDIX XXXV—concl.

Re-export of unmanufactured and manufactured tobacco from India and Burma.

440

Period.	Exported to			Manufactured Tobacco.		
	Unmanufactured Tobacco.		Total. Foreign Countries.	Empire Countries.		Foreign Countries. Total.
	Empire Countries.	Foreign Countries.		Rs.	Rs.	
1930-31	3,541	33,050	22,556
1931-32	2,061	43,649	17,698
1932-33	3,183	23,084	6,991
1933-34	19,256	31,659	16,304
1934-35	500	3,074	65,720
Average {	Amount ..	..	..	4,587	4,215	8,804
Per cent.	52.1	47.9	100.0
1935-36	34,581	16,437
1936-37	450	2,623	3,073
1937-38*	31,499	440	31,939

* Provisional.

APPENDIX XXVI.

Annual net available supplies of all types of tobacco in India.

(Thousand lb.)

	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Gross production* ..	1227,520	1272,320	1305,920	1153,600	1429,228	1346,240
Net production* available for consumption and export after allowing 20% for drage and waste in manufacture.. ..	982,016	1017,856	1044,736	9,22,880	1143,382	1076,992
Imports—						
By sea from foreign countries	5,809	8,739	6,461	6,152	4,303	5,617
By sea from Burma ..	2,451	4,183	6,716	2,271	1,872	3,610
By land	2,239	11,240	7,630	5,794	9,626	8,215
Total ..	17,499	24,162	20,807	14,217	15,801	17,442
Exports and Re-exports—						
By sea to foreign countries	22,479	20,462	28,721	25,609	28,621	28,763
By sea to Burma ..	15,504	15,122	12,801	13,249	13,582	15,461
By land	11,011	9,232	8,773	9,104	9,703	9,230
Total ..	48,994	44,816	50,295	47,962	51,906	53,454
Excess of exports over imports.	31,495	20,654	29,488	33,745	36,105	36,012
Production available for consumption.	982,016	1017,856	1044,736	922,880	1143,382	1076,992
Net supply available for consumption.	950,521	997,202	1015,248	889,135	1107,277	1040,980
Net supply available per capita in lb.	2.8	2.9	2.9	2.6	3.1	2.9

*The statistics of production mentioned against each year are those of the preceding year in order to correlate them with export and import figures.

APPENDIX XXVII.

Annual net available supplies of all types of tobaccos in Burma.

(Thousand lb.)

	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Gross prouction*	109,760	87,360	87,360	100,800	100,980	103,040
Net production* available for consumption and export after allowing 20% for drage and waste in manufacture ..	87,808	69,888	69,888	80,640	80,784	82,432
Imports—						
By sea from foreign countries	97	61	72	141	220	101
By sea from India ..	15,504	15,122	12,801	13,219	13,582	15,461
By land	203	275	332	118	95	125
Total ..	15,804	15,458	13,205	13,508	13,897	15,687
Exports and Re-exports—						
By sea to foreign countries	3,810	1,193	1,273	1,821	1,045	500
By sea to India ..	2,451	4,183	6,716	2,271	1,872	3,610
By land	186	79	121	176	308	430
Total ..	6,447	5,455	8,110	4,268	3,225	4,600
Excess of imports over exports.	9,357	10,003	5,095	9,240	10,672	11,087
Production available for consumption.	87,808	69,888	69,888	80,640	80,784	82,432
Net supply available for consumption.	97,165	79,891	74,983	89,880	91,456	93,519
Net supply available <i>per capita</i> in lb.	6.6	6.0	5.6	6.6	6.6	6.7

* The statistics of production mentioned against each year are those of the preceding year in order to correlate them with export and import figures.

APPENDIX XXVIII.
Estimated consumption of tobacco products in India and Burma in 1934-35.

Province or State.	Cigarettes.		Cigars and cheroots.		Bids.		Other tobacco products.		All tobacco products.	
	Quantity.		Per capita.		Quantity.		Per capita.		Quantity.	
	lb.	Nos.	lb.	Nos.	lb.	Nos.	lb.	Nos.	lb.	per capita lb.
Assam ..	1,120,796	0.125	44	*	560,880	0.062	62	26,256,892	2.916	27,947,568
Bengal ..	2,741,506	0.054	19	998,760	0.020	4	6,796,980	0.133	133	163,332,620
Bihar and Orissa ..	1,640,000	0.042	15	8,528	*	*	4,895,400	0.126	126	112,372,724
Bombay ..	2,214,000	0.118	41	328,000	0.014	3	8,919,140	0.477	477	46,257,020
Central Provinces and Berar.	701,674	0.044	15	60,270	0.004	1	2,870,000	0.179	179	14,976,234
Madras ..	1,372,434	0.028	10	89,631,986	1.861	372	10,295,100	0.218	218	50,242,876
N.W. F. P. ..	205,000	0.083	29	18,040	0.007	2	3,075	0.001	1	15,063,312
Punjab ..	1,429,342	0.058	20	20,418	0.001	*	127,797	0.005	5	48,412,718
Sind ..	632,302	0.155	54	60,024	0.014	3	2,804,400	0.687	687	9,248,378
United Provinces ..	1,466,816	0.029	10	51,250	0.001	*	3,424,512	0.070	70	219,021,262
Baroda ..	281,834	0.111	39	*	*	*	1,679,483	0.660	660	3,068,358
Nizam's Dominions ..	1,312,000	0.087	30	410,000	0.027	5	10,004,000	0.664	664	15,924,072
Kashmir ..	164,000	0.044	15	*	*	*	254,602	0.068	68	3,993,974
Mysore ..	718,484	0.107	37	56,334	0.008	2	3,852,811	0.572	572	8,705,630
Tiravencore ..	50,020	0.009	3	29,520	0.005	1	750,300	0.137	137	9,571,778
Other areas ..	3,957,150	0.075	26	816,768	0.012	3	11,440,354	0.217	217	118,714,500
India ..	20,016,353	0.057	20	92,489,898	0.265	53	68,687,024	0.197	197	835,069,130
Burma ..	1,731,840	0.127	45	73,062,000	5.37	547	6,479,968	0.476	476	5,679,289

* Represents negligible consumption.

Note—Other tobacco products comprise of manufactured *hookah* and chewing tobacco and snuff.

No account has been taken of the extremely small quantity of manufactured pipe and cut tobacco consumed in the country.

APPENDIX XXIX.

Imports of unmanufactured tobacco in the United Kingdom.

(In million lb.)

Countries.	1919.	1922.	1925.	1928.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
<i>Empire Countries—</i>											
British India	4	4	8	10	9	9	13	10	12	14	19
Nyasaland	..	6	7	12	11	15	10	13	10	13	14
Canada	..	..	1	2	6	6	11	14	8	7	8
Rhodesia	..	..	..	1	12	6	11	10	16	15	15
Others	..	4	1	1	3	2	2	2	1	1	1
Total	..	14	13	19	43	34	48	49	48	45	53
<i>Foreign countries—</i>											
United States:—	316	167	163	172	157	125	160	189	203	214	205
Others	..	19	5	7	3	3	2	2	-4	5	7
Total	..	335	172	170	175	160	127	162	191	207	219
Total Imports	349	185	189	218	194	175	211	239	252	272	269

APPENDIX XXX.

Consumption of Empire and Foreign manufactured tobacco in the United Kingdom.

(Deliveries from bond for home consumption.)

(In thousands of lb.).

Country of origin.	1931.	1932.	1933.	1934.	1935.	1936.	1937.				
British India	9,125	9,380	9,487	9,567	9,811	11,596	14,363	
Canada	4,857	6,720	8,974	7,772	8,433	8,788	8,861
Northern Rhodesia	800	987	1,051	778	683	674	745
Southern Rhodesia	6,251	7,864	8,602	9,275	9,957	11,292	14,148
Nyasaland	10,497	10,915	11,677	12,173	12,195	12,255	12,175
British North Borneo	657	454	466	442	468	378	284
Other Empire countries	595	650	623	538	517	605	675
Total Empire Countries	..	32,782	36,970	40,880	40,545	42,064	45,588	51,251			
Foreign countries	..	117,051	112,249	108,230	117,815	121,934	128,708	131,145			
Total	..	149,833	149,219	149,110	158,360	163,998	174,296	182,396			

APPENDIX XXXI.

*Average monthly wholesale prices of flue-cured Virginia cigarette tobacco at Gruntur.
(Per mannd.)*

APPENDIX XXXII.

*Average monthly wholesale prices of sun-cured Virginia cigarette tobacco at Guntur.
(Per maund.)*

Months.	1931 Quality II Average	1932.				1933.				1934.				1935.				
		Quality I.		Quality II.		Quality I.		Quality II.		Quality I.		Quality II.		Quality I.		Quality II.		
		Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	
January ..	Rs. 5.0	Rs. ..	Rs. ..	Rs. 6.6	Rs. 6.0	Rs. ..	Rs. ..	Rs. 4.0	Rs. ..	Rs. 3.0	Rs. ..	Rs. 1.6	Rs. 10.0	Rs. 6.6	Rs. ..	Rs. 6.6	Rs. 5.0	
February ..	Rs. 3.3	Rs. 8.3	Rs. 6.6	Rs. 6.0	Rs. 3.3	Rs. 6.0	Rs. 4.0	Rs. 6.0	Rs. 2.5	Rs. 4.0	Rs. 2.5	Rs. 2.5	Rs. 1.6	Rs. ..	Rs. ..	Rs. 6.6	Rs. 5.0	
March ..	Rs. 7.0	Rs. 16.6	Rs. 11.6	Rs. 11.6	Rs. 9.0	Rs. ..	Rs. ..	Rs. ..	Rs. 4.0	Rs. ..	Rs. 2.5	Rs. 2.5	Rs. 2.0	Rs. 1.0	Rs. ..	Rs. ..	Rs. 6.0	Rs. 5.0
April ..	Rs. 8.3	Rs. 16.6	Rs. 11.6	Rs. 11.6	Rs. 9.0	Rs. 10.0	Rs. 7.5	Rs. 7.5	Rs. 2.5	Rs. 12.5	Rs. 6.0	Rs. 7.5	Rs. 2.5	Rs. 10.0	Rs. 7.5	Rs. 6.6	Rs. 2.5	
May ..	Rs. 4.0	Rs. 16.6	Rs. 11.0	Rs. 11.0	Rs. 4.0	Rs. 7.5	Rs. 5.0	Rs. 5.0	Rs. 2.0	Rs. 10.0	Rs. 6.0	Rs. 6.0	Rs. 2.5	Rs. ..	Rs. ..	Rs. ..	Rs. ..	
June ..	Rs. 4.0	Rs. 10.0	Rs. 6.0	Rs. 6.0	Rs. 3.0	Rs. 5.0	Rs. 3.3	Rs. 3.3	Rs. 1.6	Rs. 6.6	Rs. 4.0	Rs. 4.0	Rs. 2.0	Rs. ..	Rs. ..	Rs. ..	Rs. ..	
July ..	Rs. 2.5	Rs. 6.0	Rs. 4.0	Rs. 4.0	Rs. 3.0	Rs. 5.0	Rs. 3.3	Rs. 3.3	Rs. 2.0	Rs. 0.5	Rs. 6.6	Rs. 6.6	Rs. 3.6	Rs. ..	Rs. ..	Rs. ..	Rs. ..	
August ..	Rs. 2.5	Rs. 6.0	Rs. 4.0	Rs. 4.0	Rs. 3.0	Rs. 5.0	Rs. 3.3	Rs. 3.3	Rs. 2.3	Rs. 8.3	Rs. 6.6	Rs. 6.6	Rs. 2.5	Rs. ..	Rs. ..	Rs. ..	Rs. ..	
September ..	Rs. 3.3	Rs. 6.0	Rs. 4.0	Rs. 4.0	Rs. 3.0	Rs. 5.0	Rs. 3.3	Rs. 3.5	Rs. 2.0	Rs. 14.0	Rs. 7.5	Rs. 7.5	Rs. 6.0	Rs. ..	Rs. ..	Rs. ..	Rs. ..	
October ..	Rs. 1.6	Rs. 6.0	Rs. 4.0	Rs. 4.0	Rs. 3.3	Rs. 6.3	Rs. 2.5	Rs. 2.5	Rs. 1.0	Rs. 10.0	Rs. 6.6	Rs. 6.6	Rs. 3.0	Rs. ..	Rs. ..	Rs. ..	Rs. ..	
November ..	Rs. 1.0	Rs. 6.0	Rs. 4.0	Rs. 4.0	Rs. 3.0	Rs. 6.3	Rs. 2.5	Rs. 2.5	Rs. 2.0	Rs. 10.3	Rs. 6.6	Rs. 6.6	Rs. 5.0	Rs. ..	Rs. ..	Rs. ..	Rs. ..	
December ..	Rs. 1.0	Rs. 6.0	Rs. 4.6	Rs. 4.6	Rs. 4.0	Rs. 6.3	Rs. 2.5	Rs. 2.5	Rs. 1.3	Rs. 10.0	Rs. 6.6	Rs. 6.6	Rs. 4.0	Rs. ..	Rs. ..	Rs. ..	Rs. ..	

APPENDIX XXXII.

*Average monthly wholesale prices of raw country (Natu) tobacco at Guntur.
(Per maund.)*

Months.	1932.			1933.			1934.			1935.		
	Quality I.	Quality II.	Quality III.	Quality I.	Quality II.	Quality III.	Quality I.	Quality II.	Quality III.	Quality I.	Quality II.	Quality III.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
January	14.0	13.6	11.6	6.3	7.5	6.6	7.5	6.6	6.0	4.0	3.5	2.5
February	..	14.0	13.6	11.6	6.3	7.5	6.6	7.5	6.6	4.0	3.5	2.5
March	..	..	..	..	..	..	..	..	..	..	..	..
April	..	..	..	..	..	..	6.6	6.0	6.0	5.0	4.0	3.3
May	..	..	..	..	..	..	7.5	6.6	6.0	5.0	4.0	3.3
June	..	..	13.3	12.5	11.6	8.3	8.3	6.6	5.0	4.0	3.3	3.3
July	..	..	..	..	..	..	..	..	..	..	..	..
August	..	..	13.3	12.5	10.0	8.3	7.5	5.0	..	..	..	..
September	..	..	..	11.0	8.3	8.3	6.0	..	5.0	4.0	3.3	..
October	..	..	..	..	7.5	5.0	5.0	..	2.5	1.6	..	..
November	..	..	..	..	8.3	6.6	6.0	..	6.0	4.0	2.5	..
December	..	..	..	..	9.0	6.3	7.5	6.0	..	4.0	3.0	..
										6.6	5.0	3.3
									

APPENDIX XXXIV.

*Average annual ex-factory price of cigar tobacco at Dindigul market.
(Per maund.)*

Year.	Average price.	Year.	Average price.
	Rs. A. P.		Rs. A. P.
1913-14	11 0 0	1925-26	25 10 0
1914-15	10 6 0	1926-27	17 6 0
1915-16 .. ..	..	1927-28	17 13 0
1916-17	11 0 0	1928-29	16 13 0
1917-18	10 6 0	1929-30	20 10 0
1918-19	13 13 0	1930-31	16 3 0
1919-20	25 0 0	1931-32	9 6 0
1920-21	11 3 0	1932-33	9 6 0
1921-22	23 0 0	1933-34	12 0 0
1922-23	22 0 0	1934-35	14 10 0
1923-24	19 0 0	1935-36	13 13 0
1924-25	24 0 0		

APPENDIX XXXV.

Average monthly prices of cigar and cheroot tobaccos in West Godavari.

(Per maund.)

Months.	1931.	1932.	1933.	1934.	1935.	Average.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
January ..	23 5 10	28 12 9	23 5 10	11 8 4	15 10 1	20 9 1
February ..	23 5 10	28 12 9	10 11 2	11 8 4	15 2 3	17 15 0
March ..	23 5 10	24 3 0	10 11 2	9 0 10	15 4 10	16 9 11
April ..	22 3 5	23 13 9	15 10 1	12 5 6	15 15 5	17 15 0
May ..	20 3 10	25 8 1	14 5 1	12 5 6	17 4 5	17 15 0
June ..	20 3 10	25 8 1	12 5 6	13 7 11	18 1 8	17 15 0
July ..	20 3 10	26 10 6	11 8 4	15 10 1	18 1 8	18 6 11
August ..	22 3 5	27 2 5	11 8 4	17 4 5	19 14 7	19 9 4
September ..	21 14 2	27 2 5	11 8 4	17 4 5	20 9 1	19 11 11
October ..	21 14 2	27 2 5	11 8 4	17 4 5	20 14 4	19 11 11
November ..	26 13 2	28 12 9	9 0 10	17 4 5	20 1 2	20 6 6
December ..	27 7 8	28 12 9	11 8 4	17 4 5	26 15 10	22 6 1

APPENDIX XXXVI.

*Average wholesale prices of cheroot tobacco at Coconada market.**Baru Lankas. (First quality.)*

(Per maund.)

Months.	1933.	1934.	1935.	1936.	Average.	1937.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
January ..	19 12 0	24 8 0	23 14 0	20 13 0	22 8 0	22 6 0
February ..	19 12 0	23 14 0	19 12 0	20 14 0	21 1 0	22 6 0
March ..	16 8 0	21 3 0	19 12 0	28 0 0	21 6 0	22 6 0
April ..	21 2 0	20 6 0	22 8 0	28 0 0	23 0 0	22 6 0
May ..	21 2 0	20 3 0	24 0 0	..	21 12 0	22 6 0
June ..	20 6 0	24 8 0	24 0 0	24 0 0	23 4 0	22 6 0
July ..	19 12 0	24 6 0	24 0 0	22 6 0	22 10 0	27 0 0
August ..	19 12 0	24 6 0	..	22 6 0	22 3 0	..
September ..	19 12 0	24 11 0	..	22 6 0	22 4 0	..
October ..	19 12 0	24 11 0	19 3 0	22 6 0	21 8 0	..
November ..	21 2 0	24 14 0	19 3 0	22 6 0	21 14 0	..
December ..	21 2 0	23 8 0	19 3 0	22 6 0	21 9 0	..

APPENDIX XXXVII.

*Prices of tobacco at Burirhat Farm (Rangpur).**(Prices from the local sale of the farm proceeds.)*

(Per maund.)

Year.	Sumatra (a)	Sumatra (b)	Sumatra. (c)	Manilla.	Pennsyl-vania.	Burm-e se Havana.	Bhengi.	Motiha- ri.
	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
1924-25	120 0	100 0	50 0	80 0	80 0	80 0	10 0	10 0
1925-26	120 0	80 0	40 0	50 0	50 0	40 0	14 0	14 0
1926-27	120 0	80 0	50 0	50 0	50 0	40 0	13 0	12 0
1927-28	120 0	80 0	80 0	50 0	50 0	50 0	18 0	20 0
1928-29	120 0	80 0	40 0	50 0	50 0	50 0	35 0	Not grown or fail- ed.
1929-30	120 0	80 3	40 0	50 0	50 0	50 0	15 0	12 0
1930-31	100 0	80 0	40 0	50 0	50 0	50 0	5 8	5 0
1931-32	50 0	30 0	20 0	15 0	15 0	15 0	8 0	8 0
1932-33	35 0	30 0	15 0	10 0	10 0	10 0	10 0	10 0
1933-34	15 0	15 0	10 0	10 0	10 0	10 0	11 0	9 0
1934-35	..	..	..	..	..	..	8 9	..
1935-36	15 0	15 0	10 0	10 0	10 0	..	8 13	11 8
1936-37	..	..	..	..	..	8 0	10 10	..

APPENDIX XXXVIII.

Average monthly wholesale prices of Poola (Common) at Calcutta.
(Per maund.)

Months.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
January	17 0	8 0	6 12	10 0	6 8	6 0	6 8	9 0
February	16 0	7 0	6 12	10 0	6 8	7 0	6 0	8 0
March	16 0	7 0	6 12	9 8	..	7 0	7 0	7 0
April	16 0	9 0	6 12	9 8	7 0	7 0	6 0	8 0
May	15 0	10 8	6 12	9 8	7 0	7 0	7 8	6 8
June	15 0	10 8	7 0	9 8	6 8	7 0	7 8	6 8
July	15 0	6 8	7 4	9 8	6 8	7 0	8 0	7 10
August	16 0	6 8	8 0	9 8	6 8	6 8	8 0	7 12
September	15 0	6 8	8 0	9 8	6 0	6 8	9 0	..
October	13 0	6 8	8 0	9 8	6 0	6 8	9 0	..
November	12 0	6 8	8 0	9 8	6 0	8 0	8 8	..
December	9 0	6 12	8 0	9 8	6 0	8 0	8 0	..

APPENDIX XXXIX.

Monthly prices of tobacco (Jati) at Rangpur (Bengal).
(Per maund.)

Months.	1932-33.			1933-34.			1934-35.			1935-36.			1936-37.		
	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
April	8 0	to 15 0	10 0	to 12 0	8 0	to 14 0	5 8	to 10 0	11 0	to 12 0		
May	6 0	to 8 0	7 0	to 12 0	8 0	to 10 0	6 0	to 9 0	9 0	to 10 0		
June	6 0	to 8 0	9 0	to 15 12	6 0	to 10 0	6 0	..	9 0	to 10 0		
July	6 0	to 8 0	9 0	to 15 0	6 0	to 10 0	4 4	to 6 0	10 0	..		
August	6 0	to 8 0	9 0	to 15 0	6 0	to 10 0	6 0	to 8 0	11 0	..		
September	10 0	to 15 0	10 0	to 16 0	6 8	to 10 0	6 2	to 7 0	11 0	..		
October	10 0	to 15 0	10 0	to 15 0	6 8	to 10 0	6 2	to 7 0	11 0	..		
November	10 0	to 15 0	13 0	to 14 0	6 8	to 11 8	6 4	to 7 4	11 0	..		
December	10 0	to 15 0	11 0	to 16 0	6 8	to 10 8	6 0	to 8 0	11 0	..		
January	12 0	to 18 0	10 0	to 16 0	6 8	to 10 0	6 0	to 8 0	11 0	..		
February	12 0	to 18 0	10 0	to 16 0	6 8	to 11 0	10 8	to 12 4	11 0	..		
March	10 0	to 15 0	8 0	to 16 0	6 12	to 10 0	11 0	to 16 0	11 0	..		

APPENDIX XI.

Average monthly wholesale prices of average quality of locally produced cigar and cheroot tobaccos in Henzada, Thayetmyo and Pakokku (Burma).

(Per maund.)

(Adapted from the prices published by the Commissioner of Settlements and Land Records in the Burma Gazette.)

Months.	Henzada.						Thayetmyo.						Pakokku.										
	1931-32	1932-33	1933-34	1934-35	1935-36	1931-32	1932-33	1933-34	1934-35	1935-36	1931-32	1932-33	1933-34	1934-35	1935-36	1931-32	1932-33	1933-34	1934-35	1935-36			
April	..	5.5	3.7	3.8	3.4	..	..	..	..	6.2	5.0	5.1	3.5	2.3	3.4	2.3	3.7	2.3	2.3	3.0	3.4	4.0	4.6
May	..	5.5	4.1	3.5	3.0	3.0	..	..	..	6.5	4.8	3.4	3.4	3.7	2.3	3.1	3.0	3.1	3.1	3.1	4.4	4.4	4.4
June	..	5.0	4.0	4.4	2.8	2.9	..	..	..	8.2	5.0	3.4	3.4	3.4	2.3	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
July	..	3.5	4.0	5.3	2.3	2.5	..	..	..	..	5.0	3.4	2.3	2.3	2.3	2.1	4.6	4.6	4.6	4.6	4.6	3.9	3.9
August	..	1.8	4.5	5.0	2.6	2.5	3.4	..	8.0	..	4.9	3.8	3.8	2.1	2.1	4.6	4.6	4.6	4.6	4.6	4.6	3.9	3.9
September	..	2.3	4.0	3.7	2.8	2.5	4.9	9.1	7.3	5.7	4.8	5.2	2.3	2.3	2.3	4.6	6.2	6.2	6.2	6.2	6.2	6.2	6.2
October	..	2.5	4.3	3.3	2.7	2.7	4.6	10.3	6.4	5.7	4.8	5.2	2.3	2.3	2.3	5.0	6.8	6.8	6.8	6.8	6.8	6.8	6.8
November	..	2.8	4.8	4.5	2.6	3.5	4.6	..	6.4	..	4.9	5.2	2.3	2.3	2.3	4.6	8.2	8.2	8.2	8.2	8.2	8.2	8.2
December	..	2.7	5.2	6.0	2.5	3.6	4.6	..	5.8	..	5.0	4.6	3.4	3.4	3.4	4.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
January	..	3.1	3.7	5.4	3.4	4.5	4.6	..	6.3	..	5.0	4.1	3.4	3.4	3.4	4.2	9.1	9.1	9.1	9.1	9.1	9.1	9.1
February	..	2.7	3.0	5.0	3.5	3.6	4.6	..	5.6	5.0	5.0	3.9	3.4	3.4	3.4	5.0	9.7	9.7	9.7	9.7	9.7	9.7	9.7
March	..	3.4	..	4.1	3.4	4.6	..	..	5.9	5.0	4.9	4.5	3.4	3.4	3.4	5.2	6.9	6.9	6.9	6.9	6.9	6.9	6.9

APPENDIX XLI.

Weekly wholesale prices of imported Jati (Bengal) tobacco in Rangoon in 1935-36.

(Per maund.)

Months.		Ywetchoon.	Green String.	Kabya.	Shwetasok.
		Rs.	Rs.	Rs.	Rs.
April	1 ..	11.4	10.5	12.1	20.5
"	2 ..	11.4	10.3	12.1	20.5
"	3 ..	11.4	10.4	12.5	20.5
"	4 ..	11.4	10.4	12.5	20.5
May	1 ..	11.4	10.4	12.5	20.5
"	2 ..	11.9	10.7	12.5	21.0
"	3 ..	11.6	10.7	12.5	21.1
"	4 ..	11.6	10.9	12.5	21.1
June	1 ..	12.3	11.4	12.5	21.4
"	2 ..	12.3	11.4	12.5	21.1
"	3 ..	12.1	11.2	12.1	21.1
"	4 ..	11.9	10.9	12.1	21.0
July	1 ..	11.9	10.9	12.3	21.0
"	2 ..	..	..	..	..
"	3 ..	11.9	10.7	12.3	21.1
"	4 ..	11.9	10.8	12.1	21.1
August	1 ..	12.0	10.8	12.1	21.1
"	2 ..	11.9	10.7	12.3	20.5
"	3 ..	11.9	10.5	12.1	20.5
"	4 ..	..	..	..	..
September	1 ..	11.4	11.1	12.3	20.5
"	2 ..	11.6	11.4	12.5	20.0
"	3 ..	12.3	12.0	13.0	20.6
"	4 ..	12.5	12.3	13.1	20.5
October	1 ..	13.1	12.3	13.5	21.1
"	2 ..	13.1	12.3	13.1	20.5
"	3 ..	13.0	12.3	13.1	20.5
"	4 ..	12.8	12.1	13.7	20.5
November	1 ..	12.8	12.1	13.1	20.5
"	2 ..	12.8	12.1	13.1	20.5
"	3 ..	13.1	12.1	13.1	20.5
"	4 ..	13.0	12.3	14.3	20.5
December	1 ..	12.8	12.1	13.7	20.5
"	2 ..	..	..	..	..
"	3 ..	13.0	12.1	13.7	20.5
"	4 ..	..	..	..	..
January	1 ..	14.8	12.0	13.7	20.5
"	2 ..	14.3	12.0	13.7	20.5
"	3 ..	16.0	11.9	14.3	20.0
"	4 ..	..	11.9	13.7	20.5

APPENDIX XLI—*concl'd.*

(Per maund.)

Months.		Ywetchoon.	Green String.	Kabya.	Shwetasoke.
		Rs.	Rs.	Rs.	Rs.
February	1 ..	..	11.6	13.7	19.4
	2 ..	..	11.6	13.7	19.4
	3 ..	..	11.8	13.8	19.4
	4 ..	..	11.8	14.0	19.4
March	1 ..	..	12.5	14.3	19.4
	2 ..	..	12.5	14.3	19.4
	3 ..	20.5	12.5	13.7	19.4
	4 ..	19.4	12.3	14.3	19.4

APPENDIX XLIII.

Average monthly prices of *Liloo bidi* tobacco powder in the Charotar area of Bombay.
(Per maund.)

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	Rs. A. P.	Rs. A. r.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.						
1926	15 9 0	14 9 0	13 11 11	11 0 9	12 3 5	..	..	..	..	..	16 3 5
1927	17 0 9	17 2 6	17 7 7	18 10 2	14 3 7	18 0 2	15 7 0	..	..	..	..
1928	19 0 7	14 14 7	16 12 0	18 2 5	..	..	..	..	..	..	17 2 6
1929	15 2 6	15 12 8	15 4 11	13 10 9	12 5 8	..	15 0 1	..	..	..	15 9 0
1930	11 10 10	10 7 0	8 11 5	11 10 10	7 12 3	..	9 3 2	10 0 6	13 4 11	..	10 4 7
1931	10 12 1	11 5 11	9 12 10	10 7 9	14 8 4	..	..	..	..	..	7 13 10
1932	9 6 9	8 12 6	7 15 8	9 4 3	..	9 2 2	11 2 1	..	..	..	9 12 4
1933	10 5 9	9 6 6	7 0 7	9 5 8	..	14 12 2	..	..	..	..	11 7 11
1934	12 12 3	12 2 4	11 2 0	8 9 5	11 2 8	13 8 10	11 5 11	..	..	..	11 2 1
1935	9 4 4	11 6 8	..	..	..	..	..	..	..	..	..
Average	13 1 8	12 0 8	12 5 1	12 0 8	14 0 1	12 7 0	10 6 6	13 4 11	9 14 9	10 14 1	12 13 6

APPENDIX XLIV.

*Average annual prices of bidi tobacco at Sangli market.
(Per maund.)*

Year.	Mirji tobacco powder.			Pandharpuri tobacco powder.			Other type of tobacco powder (Jarda).			Mirji Pendis (Bundles).			
	Best.	Medium.	Poor.	Best.	Medium.	Poor.	Best.	Medium.	Poor.	Best.	Medium.	Poor.	
Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
1930-31	..	..	9 2 10	6 9 8	4 15 3	17 9 10	12 1 9	9 8 8	12 13 6	11 0 2	9 14 7	..	..
1931-32	..	..	9 8 8	6 9 8	4 12 4	22 6 2	16 8 3	10 10 4	14 10 11	11 0 2	10 4 5	..	..
1932-33	..	..	15 0 9	12 13 6	8 1 2	22 12 1	18 5 7	12 13 6	16 8 3	14 10 11	13 9 3	11 0 2	9 2 10
1933-34	..	..	13 3 5	8 12 11	7 6 5	16 14 1	12 1 9	8 1 2	18 5 7	14 10 11	13 15 2	8 12 11	7 6 5
1934-35	..	..	13 15 2	11 0 2	7 11 4	18 5 7	12 13 6	8 12 11	18 5 7	14 10 11	13 15 2	8 12 11	7 6 5
1935-36	..	..	11 0 2	9 2 10	6 14 0	18 5 7	12 13 6	7 5 5	16 8 3	14 10 11	..	11 0 2	9 2 10
1936-37	..	..	12 13 6	11 0 2	8 1 2	16 8 3	9 2 10	7 5 5	18 5 7	14 10 11	..	11 0 2	9 2 10

APPENDIX XLV.

*Daily prices of bidi Jarda (powder) at Jayasingpur in 1935.
(Per maund.)*

Dates.	February.		March.		April.	
	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1	16 8 6	7 11 5	14 5 2	6 9 9	12 7 10	5 14 0
2	16 8 6	6 15 8	16 14 4	6 15 8	12 13 8	5 8 2
3	..	..	16 8 6	6 9 9	..	..
4	15 12 8	6 9 9	16 14 4	6 9 9	13 15 4	5 14 0
5	19 1 7	7 5 7	..	..	13 3 7	5 14 0
6	18 5 10	6 15 8	15 6 10	6 3 11	13 15 4	6 3 11
7	18 11 9	6 9 9	15 6 10	6 9 9	13 3 7	6 3 11
8	17 4 3	6 9 9	16 8 6	7 5 7	12 13 8	5 14 0
9	17 4 3	6 9 9	19 13 4	7 11 5	13 3 7	5 14 0
10	18 11 9	7 11 5	18 11 9	7 5 7	14 5 2	6 3 11
11	17 10 1	7 11 5	16 8 6	7 5 7	15 0 11	5 14 0
12	16 8 6	7 5 7	16 8 6	6 9 9	13 3 7	5 14 0
13	17 10 1	7 11 5	16 8 6	7 5 7	14 5 2	6 3 11
14	16 8 6	7 11 5	16 14 4	6 9 9	13 3 7	5 14 0
15	17 10 1	7 11 5	16 14 4	6 15 8	13 3 7	5 8 2
16	16 8 6	7 5 7	15 6 10	6 9 9	15 0 11	5 14 0
17	16 14 4	7 5 7	16 14 4	6 9 9	13 15 4	5 14 0
18	15 0 11	7 11 5	13 15 4	7 5 7	13 3 7	6 3 11
19	17 10 1	7 5 7	14 5 2	7 5 7	13 3 7	6 3 11
20	16 8 6	6 9 9	15 0 11	6 15 8	14 5 2	6 3 11
21	16 8 6	7 5 7	..	..	13 3 7	6 9 9
22	16 8 6	6 9 9	13 3 7	6 9 9	13 3 7	6 9 9
23	16 14 4	7 5 7	16 14 4	6 9 9	13 3 7	6 9 9
24	16 14 4	6 9 9	16 8 6	6 9 9	12 13 8	6 3 11
25	17 10 1	7 5 7	13 15 4	5 14 0	13 3 7	6 3 11
26	14 11 1	7 5 7	13 3 7	6 3 11	11 12 1	5 14 0
27	14 5 2	6 9 9	14 5 2	6 9 9	13 3 7	6 3 11
28	15 6 10	6 9 9	15 0 11	6 3 11	12 7 10	5 14 0
29	..	..	13 15 4	6 3 11	13 3 7	6 3 11
30	..	..	15 0 11	6 3 11	12 7 10	5 8 2
31	..	..	13 3 7	6 3 11	..	..

APPENDIX XLVI.

Prices of bidi Jarda (powder) at Jayasingpur.

(Per maund.)

Dates.	Maximum.	Minimum.
	Rs. a. p.	Rs. a. p.
16th January 1935	16 14 4	7 5 7
24th January 1935	19 1 7	0 2 11
31st January 1935	16 8 6	7 11 5
2nd February 1935	16 8 6	6 15 8
10th February 1935	18 11 9	7 11 5
18th February 1935	15 0 11	7 11 5
26th February 1935	14 11 1	7 5 7
28th February 1935	15 6 10	6 9 9
2nd March 1935	16 14 4	6 15 8
10th March 1935	18 11 9	7 5 7
18th March 1935	13 15 4	7 5 7
26th March 1935	13 3 7	6 3 11
31st March 1935	13 3 7	6 3 11
1st April 1935	12 7 10	5 14 0
9th April 1935	12 1 11	5 14 0
18th April 1935	13 3 7	6 3 11
26th April 1935	11 12 1	6 3 11

APPENDIX XLVI—*contd.**Prices of bidi Jarda (powder) at Jayasingpur.*

(Per maund).

	Dates.				Maximum.	Minimum.
					Rs. A. P.	Rs. A. P.
30th April 1935	12 7 10	5 14 0
1st May 1935	11 12 1	5 8 2
9th May 1935	12 7 10	5 2 3
19th May 1935	12 1 11	4 12 5
26th May 1935	11 12 1	5 8 2
30th May 1935	12 1 11	5 14 0
28th October 1935	13 15 4	7 5 7
3rd November 1935	13 15 4	7 5 7
10th November 1935	18 0 0	10 4 7
18th November 1935	17 10 0	9 8 10
25th November 1935	16 14 4	6 9 9
30th November 1935	15 0 11	5 14 0
1st December 1935	13 15 4	5 14 0
8th December 1935	13 15 4	6 9 9
15th December 1935	15 0 11	6 3 11
24th December 1935	14 5 2	6 9 9
31st December 1935	13 15 4	6 9 9

APPENDIX

Average wholesale monthly prices of different

(Per)

Year.	Type of tobacco.	January.	February.	March.	April.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1931	1. Locally grown <i>zarda</i> (chewing and <i>bidi</i> tobacco) .. ..	..	..	..	12 3 0
	2. Locally grown <i>desi</i> , smoking tobacco (superior) .. ..	..	..	..	11 14 0
1932	1. Locally grown <i>zarda</i> (chewing and <i>bidi</i> tobacco)	7 5 0	6 11 0	6 13 0	5 11 0
	2. Locally grown <i>desi</i> , smoking tobacco (superior)	11 5 0	8 13 0	7 15 0	11 7 0
1933	1. Locally grown <i>zarda</i> (chewing and <i>bidi</i> tobacco)	7 14 0	6 6 0	5 10 0	6 11 0
	2. Locally grown <i>desi</i> , smoking tobacco (superior)	10 15 0	11 8 0	8 3 0	7 12 0
1934	1. Locally grown <i>zarda</i> (chewing and <i>bidi</i> tobacco)	6 6 0	8 5 0	8 1 0	7 11 0
	2. Locally grown <i>desi</i> , smoking tobacco (superior)	7 5 0	11 5 0	10 7 0	11 12 0
1935	1. Locally grown <i>zarda</i> (chewing and <i>bidi</i> tobacco)	10 0 0	10 5 0	9 12 0	..
	2. Locally grown <i>desi</i> , smoking tobacco (superior)	14 13 0	9 0 0	10 8 0	..

DIX XLVII.

classes of tobacco in Hyderabad (Dn.)
maund).

APPENDIX XLVIII—*contd.*

Statement showing the average weekly prices of locally grown (zarda) tobacco in Hyderabad (Dn.) market (used for bidi and chewing).

(1934-35).

(Per maund).

Date.	I Quality.	II Quality.	III Quality.	IV Quality.	V Quality.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
14th December 1934 ..	13 0 4	10 7 9	7 1 7	..	..
21st December 1934 ..	12 5 6	10 4 10	7 10 0	..	..
28th December 1934 ..	13 9 0	9 3 7	6 15 2	..	..
3rd January 1935 ..	12 11 7	10 6 2	6 8 7	5 12 11	..
11th January 1935 ..	..	9 13 11	7 5 4	..	..
18th January 1935 ..	..	10 2 7	7 3 7	5 1 3	3 9 11
25th January 1935 ..	..	10 0 10	8 2 8	..	..
8th February 1935 ..	14 7 9	10 2 4	7 8 0	4 14 3	..
15th February 1935 ..	..	9 6 9	7 12 8	4 5 7	..
22nd February 1935 ..	12 4 10	11 9 6	9 6 9	..	..
1st March 1935 ..	13 0 0	11 0 5	8 10 8	5 12 5	..
8th March 1935 ..	14 11 6	10 13 4	7 15 0	5 12 5	..
15th March 1935 ..	..	10 4 1	7 6 5	5 6 8	..
22nd March 1935 ..	..	10 4 8	7 10 4	5 6 8	..
29th March 1935 ..	13 12 6	10 7 7	7 12 3	5 12 5	..
5th April 1935 ..	12 6 6	10 3 7	7 6 0	5 12 0	3 9 5
12th April 1935 ..	13 0 9	9 15 5	7 14 6	..	2 14 1
19th April 1935 ..	12 6 5	10 6 11	7 5 6	4 7 3	3 2 8
26th April 1935 ..	12 15 3	10 12 8	7 15 10	5 12 1	..
3rd May 1935 ..	13 6 10	9 15 1	8 1 7	..	..
10th May 1935 ..	..	10 1 2	7 2 8	..	..
17th May 1935 ..	..	9 13 3	7 4 5	5 12 0	2 14 1
24th May 1935 ..	..	15 13 5	10 10 6	7 15 2	..
31st May 1935 ..	..	13 8 9	10 3 2	8 4 4	5 0 8
7th June 1935 ..	..	13 3 7	10 0 8	8 9 5	..

APPENDIX XLVIII—*concl.*

Statement showing the average weekly prices of locally grown (zarda) tobacco in Hyderabad (Dn.) market (used for bidi and chewing).

(1934-35).
(Per maund).

Date.	I Quality.	II Quality.	III Quality.	IV Quality.	V Quality.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
14th June 1935	10 9 4	7 15 5	..	..
21st June 1935	11 15 10	10 5 4	7 11 11	5 0 8
28th June 1935	12 2 5	9 15 2	7 13 8	..
5th July 1935	14 4 0	9 12 7	7 7 9	..
12th July 1935	12 2 9	9 15 4	7 11 0	..
19th July 1935	10 6 2	7 13 5	..
26th July 1935	9 13 1	7 13 5	..
2nd August 1935	12 8 9	9 5 4	7 7 2	3 9 2
9th August 1935	9 4 9	7 12 3	5 5 10
16th August 1935	9 11 8	7 6 3	3 0 1
23rd August 1935	12 2 6	9 4 9	6 15 6	..
30th August 1935	11 1 4	7 12 0	5 0 1
6th September 1935	9 13 2	7 9 6	..
10th September 1935	9 11 7	7 11 0	5 12 1
20th September 1935	15 0 3	9 14 5	7 0 0	..
4th October 1935	12 8 4	9 14 2	8 0 9	4 13 2

APPENDIX XLIX.

Average monthly wholesale prices of Motihari hookah tobacco at Patgram, Jalpaiguri district, Bengal.

(Per maund).

Months.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
January	38	22	18	17	17	17	12	6
February	36	20	17	17	17	17	10	7
March	30	19	16	16	16	16	10	7
April	20	18	16	16	15	15	8	7
May	22	16	15	15	12	12	8	5
June	24	16	15	15	10	10	7	5
July	28	16	15	15	10	9	7	5
August	30	18	16	16	11	9	7	5
September	34	18	16	16	12	11	9	6
October	35	20	17	16	14	11	9	6
November	39	20	17	17	15	13	10	6
December	40	21	18	17	15	14	11	6

APPENDIX L.

Fortnightly average wholesale prices of Jati and Moithari tobacco (average quality) in Cooch Behar State.

Period.		1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
		Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
January	1st fortnight	..	21 3	16 11	31 5	23 13	8 10	9 0	13 13	11 1	8 1	10 6
	2nd fortnight	..	21 7	21 4	32 7	23 13	8 0	9 0	13 4	11 8	8 7	10 8
February	1st fortnight	..	21 5	20 7	33 13	23 10	7 2	9 1	13 7	11 4	7 9	10 8
	2nd fortnight	..	21 9	21 13	32 11	23 3	6 2	8 14	13 4	11 6	7 14	10 7
March	1st fortnight	..	21 7	20 4	32 11	20 4	6 3	8 15	12 12	11 13	7 9	10 8
	2nd fortnight	..	22 9	20 2	32 15	19 12	5 9	8 5	12 3	11 14	7 6	11 14
April	1st fortnight	..	20 7	20 4	28 0	13 9	7 15	8 14	10 8	10 15	6 1	..
	2nd fortnight	..	20 7	21 0	27 13	27 13	8 4	8 0	10 9	10 14	5 11	..
May	1st fortnight	..	16 11	23 0	31 4	12 1	7 1	8 2	10 11	10 3	5 12	..
	2nd fortnight	..	18 5	24 5	31 10	11 4	7 4	7 1	11 14	9 12	6 12	..

June ..	..	1st fortnight	..	18 12	24 1	28 3	10 5	6 11	8 11	12 10	8 11	7 8	8 1	..
		2nd fortnight	..	18 13	22 10	29 6	9 10	6 11	8 1	14 0	8 1	7 0	5 13	..
July ..	..	1st fortnight	..	18 0	22 9	27 11	9 7	6 0	8 15	14 5	8 5	7 13	6 3	..
		2nd fortnight	..	16 10	23 4	26 13	8 14	6 1	9 11	13 1	7 12	7 9	7 9	..
August ..	..	1st fortnight	..	17 12	24 7	24 8	11 9	5 14	9 12	13 4	8 7	7 12	8 1	..
		2nd fortnight	..	18 6	24 11	23 13	11 10	7 0	10 2	13 6	7 14	7 11	8 0	..
September ..	..	1st fortnight	..	17 13	23 9	23 14	10 11	7 8	11 1	12 9	8 8	7 12	9 0	..
		2nd fortnight	..	18 9	23 12	23 10	10 8	9 3	11 1	12 11	8 7	7 10	9 8	..
October ..	..	1st fortnight	..	16 7	23 6	23 3	10 7	9 9	11 5	12 12	8 9	7 12	9 3	..
		2nd fortnight	..	16 4	23 15	24 1	10 5	11 10	11 1	12 14	8 9	8 0	10 0	..
November ..	..	1st fortnight	..	17 1	25 7	23 5	11 3	12 0	10 13	12 13	8 13	7 1	10 6	..
		2nd fortnight	..	16 11	30 11	23 9	9 5	11 5	11 3	10 8	8 7	7 7	9 11	..
December ..	..	1st fortnight	..	18 2	30 3	24 0	9 10	11 6	11 10	11 3	8 8	8 8	10 2	..
		2nd fortnight	..	17 9	32 5	22 6	8 13	11 1	11 15	12 3	8 10	8 10	10 4	..

APPENDIX LI.

*Annual harvest prices of raw tobacco in the three important tobacco producing districts
of North Bihar.
(Per maund).*

Year.	Muzaffarpur.	Darbhanga.	Purnea.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
1912-13	18 13 0	10 0 0	9 0 0
1913-14	17 8 0	7 3 0	8 0 0
1914-15	21 4 0	8 5 0	6 0 0
1915-16	20 0 0	8 0 0	6 0 0
1916-17	15 0 0	9 3 0	6 8 0
1917-18	18 0 0	10 10 0	6 8 0
1918-19	23 12 0	13 8 0	6 8 0
1919-20	27 9 0	11 8 0	8 0 0
1920-21	26 4 0	14 8 0	6 0 0
1921-22	40 0 0	14 0 0	8 0 0
1922-23	40 0 0	11 13 0	12 0 0
1923-24	20 0 0	15 8 0	10 0 0
1924-25	23 5 0	15 11 0	16 0 0
1925-26	20 0 0	11 11 0	8 0 0
1926-27	17 5 0	12 4 0	8 8 0
1927-28	18 11 0	12 7 0	9 0 0
1928-29	17 5 0	12 8 0	14 0 0
1929-30	15 10 0	19 5 0	13 0 0
1930-31	12 0 0	13 13 0	5 0 0
1931-32	13 11 0	9 4 0	9 8 0
1932-33	17 5 0	8 5 0	5 12 0
1933-34	10 11 0	9 13 0	4 8 0
1934-35	14 8 0	7 15 0	3 12 0
1935-36	13 11 0	9 11 0	3 0 0
1936-37	16 8 0	13 11 0	4 12 0

APPENDIX LII.

*Average monthly wholesale prices at Cawnpore of Farrukhabadi Kampilla tobacco.
(Per maund).*

Months.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
January ..	8 4 0	8 10 7	8 4 0	8 4 0	..	9 1 2	9 7 9
February ..	8 10 7	9 14 4	8 10 7	9 1 2	11 2 2	9 7 9	9 7 9
March ..	8 10 7	9 14 4	..	9 7 9	..	9 7 9	9 7 9
April ..	9 7 9	9 7 9	9 1 2	6 9 7	8 4 0	8 10 7	7 13 4
May ..	10 11 7	8 4 0	9 7 9	..	10 4 11	8 4 0	..
June ..	11 2 2	8 4 0	10 4 11	..	10 4 11	8 10 7	..
July ..	11 2 2	7 6 9	..	..	9 1 2	7 13 4	..
August ..	11 2 2	8 4 0	7 6 9	..	9 1 2	9 1 2	..
September ..	9 14 4	8 4 0	..	..	9 1 2	9 7 9	..
October ..	9 7 9	8 10 7	8 4 0	9 7 9	9 7 9	9 1 2	..
November ..	9 1 2	8 10 7	8 10 7	9 14 4	9 7 9	8 10 7	..
December ..	10 11 7	8 10 7	8 10 7	10 4 11	9 4 7	9 1 2	..

APPENDIX LIII.

Average monthly wholesale prices (at Cawnpore) of Poorhi (i.e. Desi) tobacco imported from Bachhor, Dyer and Saresh in Bihar.

(Per maund).

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Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.								
Bachhor ..	7 6 9	7 6 9	6 9 7	9 1 2	10 4 11	11 2 2	11 2 2	11 8 9	11 2 2	11 15 4	11 15 4	11 15 4
1931 .. Dyer ..	7 6 9	7 6 9	5 12 . 4	9 1 2	10 4 11	11 2 2	11 8 9	11 2 2	10 11 7	11 15 4	11 8 9	
Saresh ..	5 12 4	6 9 7	5 5 9	7 6 9	7 13 4	7 13 4	9 1 2	9 1 2	9 1 2	9 14 4	9 7 9	
Bachhor ..	11 2 2	11 2 2	10 11 7	9 14 4	8 4 0	7 6 9	7 6 9	7 6 9	7 6 9	8 4 0	7 0 2	7 6 9
1932 .. Dyer ..	10 4 11	10 11 7	10 11 7	10 11 7	7 6 9	7 6 9	7 6 9	7 6 9	7 6 9	7 0 2	6 9 7	6 9 7
Saresh ..	8 4 0	9 1 2	7 6 9	7 0 2	5 12 4	5 12 4	5 12 4	5 12 4	5 12 4	5 12 4	6 9 7	5 12 4
Bachhor ..	7 6 9	7 6 9	7 6 9	7 6 9	7 6 9	7 6 9	7 6 9	7 6 9	7 6 9	6 9 7	6 9 7	6 9 7
1933 .. Dyer ..	7 0 2	7 0 2	7 6 9	7 6 9	7 6 9	7 6 9	7 6 9	6 9 7	6 3 0	6 9 7	6 9 7	
Saresh ..	5 12 4	5 12 4	5 12 . 4	6 9 7	5 12 4	5 12 4	5 12 4	5 12 4	5 12 4	4 15 2	4 15 2	4 15 2

		Bachhor ..	7 0 2	6 12 10	7 0 2	8 10 7	8 10 7	0 1 2	8 10 7	8 7 3	8 0 8	8 13 10	8 13 10	0 7 9
1934 ..	Dyer ..		7 0 2	7 0 2	7 0 2	8 10 7	8 10 7	9 1 2	8 10 7	8 7 3	8 0 8	8 13 10	8 13 10	0 7 9
	Saresh ..		5 15 8	5 15 8	5 5 9	5 12 4	6 3 0	6 6 3	5 12 4	5 9 1	5 9 1	6 9 1	6 9 7	6 9 7
	Bachhor ..		9 4 7	10 4 11	10 4 11	10 4 11	9 14 4	10 11 7	10 11 7	10 11 7	10 11 7	10 11 7	9 14 4	10 4 11
1935 ..	Dyer ..		9 4 7	10 4 11	10 4 11	10 4 11	9 14 4	9 14 4	9 14 4	9 14 4	9 14 4	9 14 4	9 14 4	9 7 0
	Saresh ..		6 3 0	7 6 9	7 6 9	7 6 9	7 0 2	7 0 2	7 0 2	7 0 2	7 6 9	7 0 2	7 0 2	7 0 2
	Bachhor ..		7 10 1	..	8 0 8	10 11 7	9 4 7	9 14 4	9 14 4	9 1 2	9 9 5	9 1 2	7 13 4	8 0 8
1936 ..	Dyer ..		7 11 8	..	8 4 0	11 8 9	10 8 3	9 14 4	8 13 10	9 14 4	9 4 7	8 7 3	8 4 0	8 10 7
	Saresh ..		6 9 7	..	7 5 1	8 10 7	9 1 2	8 0 8	7 5 1	7 10 1	9 6 9	7 8 5	6 12 10	7 0 2
	Bachhor ..		9 4 7	8 13 10	8 4 0	9 7 9	8 0 8	..	..	..	..	..	..	..
1937 ..	Dyer ..		9 1 2	8 7 3	8 13 10	7 13 4	9 4 7	..	..	..	..	..	..	..
	Saresh ..		7 6 9	6 9 7	6 14 6	6 12 10	7 3 6	..	..	..	..	..	..	..

APPENDIX

Average monthly wholesale prices of hookah tobacco

(Per

Months.	Ferozepore Market						
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
April ..	10 0 0	8 14 3	8 0 0	5 9 9	6 15 3	10 0 0	8 0 0
May ..	10 0 0	10 0 0	8 0 0	5 9 9	6 15 3	10 0 0	8 0 0
June ..	10 0 0	10 0 0	8 0 0	6 6 6	6 4 0	10 0 0	8 0 0
July ..	6 10 9	10 0 0	8 0 0	6 6 6	6 15 3	7 8 0	8 0 0
August ..	8 0 0	8 0 0	5 15 0	6 2 6	6 0 6	7 0 0	8 0 0
September ..	8 0 0	8 0 0	5 15 0	6 4 0	8 6 9	8 0 0	8 0 0
October ..	8 0 0	8 0 0	5 15 0	5 9 9	10 0 0	8 0 0	8 0 0
November ..	8 0 0	8 0 0	5 15 0	5 9 9	10 0 0	8 0 0	8 0 0
December ..	8 0 0	8 0 0	5 15 0	5 9 9	10 0 0	8 0 0	8 0 0
January ..	8 0 0	8 0 0	5 15 0	6 6 6	10 0 0	8 0 0	9 8 0
February ..	8 0 0	8 0 0	5 15 0	6 6 6	10 0 0	8 0 0	10 0 0
March ..	8 0 0	8 0 0	5 0 0	6 15 3	10 0 0	8 0 0	10 0 0

LIV.

at Ferozepur and Lyallpur in the Punjab.

maund.).

Lyallpur Market.

1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
10 0 0	10 0 0	10 0 0	9 0 0	8 0 0	9 12 0	8 0 0
10 0 0	10 0 0	10 0 0	9 0 0	7 0 0	8 12 0	8 0 0
10 0 0	10 0 0	10 0 0	9 0 0	8 0 0	9 0 0	7 8 0
10 0 0	10 0 0	10 0 0	9 0 0	7 4 0	10 0 0	7 4 0
10 0 0	10 0 0	9 0 0	9 0 0	7 2 0	9 8 0	8 0 0
10 0 0	10 0 0	9 0 0	8 0 0	7 0 0	9 2 0	7 0 6
10 0 0	10 0 0	9 0 0	8 0 0	8 0 0	8 12 0	6 0 0
10 0 0	10 0 0	9 0 0	8 0 0	7 8 0	8 4 0	5 0 0
10 0 0	10 0 0	9 0 0	8 0 0	10 0 0	8 4 0	5 0 0
10 0 0	10 0 0	9 0 0	8 0 0	..	9 0 0	5 0 0
10 0 0	10 0 0	9 0 0	8 0 0	..	9 2 0	5 0 0
10 0 0	10 0 0	9 0 0	8 0 0	..	8 12 0	5 0 0

APPENDIX
Average monthly wholesale prices of
 (Per)

Month.	Murhan Tobaccoo.					Chhabua.		
	1931-32.		1932 -33.		1933-34.	1934-35.	1935-36.	1931-32.
	Rs. A. P.	Rs A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
April ..	..	11 0 0	9 8 0	7 0 0	9 0 0	..	..	4 8 0
May ..	..	11 0 0	9 0 0	7 0 0	8 8 0	..	..	4 8 0
June ..	..	10 8 0	8 8 0	8 0 0	10 0 0	..	..	4 0 0
July ..	..	11 8 0	8 0 0	8 0 0	11 8 0	..	..	4 0 0
August ..	..	11 8 0	8 0 0	8 0 0	14 0 0	..	..	3 8 0
September ..	..	11 0 0	7 8 0	9 8 0	15 8 0	..	..	3 8 0
October ..	15 0 0	11 0 0	7 0 0	10 0 0	13 0 0	5 12 0	3 8 0	
November ..	14 8 0	10 0 0	6 8 0	11 8 0	12 0 0	5 12 0	3 0 0	
December ..	14 0 0	10 0 0	5 12 0	12 0 0	11 0 0	5 12 0	3 0 0	
January ..	13 0 0	10 0 0	5 8 0	15 0 0	7 8 0	5 12 0	3 0 0	
February ..	12 8 0	10 0 0	5 8 0	14 0 0	7 0 0	5 12 0	3 0 0	
March ..	11 0 0	9 8 0	5 12 0	11 0 0	7 0 0	5 0 0	2 12 0	

LV.

*chewing tobacco at Bark in North Bihar.
maund.)*

Tobacco.			Donji Tobacco.					
1933-34.	1934-35.	1935-36.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	
Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
2 12 0	2 8 0	4 0 0	..	1 6 0	0 10 0	0 10 6	1 7 0	
2 8 0	2 8 0	4 8 0	..	1 8 0	0 10 0	0 11 0	1 2 0	
2 8 0	2 12 0	4 8 0	..	1 8 0	0 9 0	1 2 0	1 0 0	
2 0 0	2 12 0	4 12 0	..	1 4 0	0 9 0	1 6 0	1 2 0	
2 4 0	3 4 0	4 12 0	..	1 6 0	0 9 0	1 12 0	1 2 0	
2 4 0	4 4 0	5 8 0	..	1 6 0	0 8 0	1 12 0	0 15 0	
2 4 0	4 4 0	4 8 0	2 4 0	0 14 0	0 8 0	2 0 0	0 14 0	
2 0 0	5 0 0	3 12 0	2 2 0	0 14 0	0 8 0	1 12 0	0 13 0	
2 0 0	5 0 0	3 8 0	1 14 0	0 12 0	0 8 0	1 12 0	0 12 0	
2 0 0	4 4 0	2 12 0	1 14 0	0 2 0	0 9 0	1 8 0	0 12 0	
2 2 0	3 8 0	2 8 0	1 12 0	0 11 0	0 9 0	1 6 0	0 11 0	
2 4 0	3 12 0	3 12 0	1 6 0	0 11 0	0 10 6	1 2 0	0 12 0	

APPENDIX LVI.

Average monthly wholesale prices of chewing tobaccos at Palghat market.

(Per maund.)

Month.	Meenampalyam No. I Quality.						Udumalpet No. I Quality.					
	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	/	
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
April	39 8 0	42 12 0	41 2 0	37 14 0	41 2 0	21 6 0	21 1 0	19 12 0	23 0 0	24 10 0	
May	38 10 0	37 14 0	36 3 0	34 9 0	38 3 0	19 12 0	19 12 0	21 6 0	20 9 0	22 6 0
June	39 8 0	39 8 0	38 10 0	31 5 0	37 0 0	23 0 0	19 2 0	20 9 0	21 6 0	21 1 0	
July	36 3 0	38 10 0	34 9 0	30 10 0	34 9 0	20 9 0	19 12 0	18 2 0	21 1 0	19 7 0	
August	35 14 0	36 3 0	39 8 0	34 14 0	36 3 0	21 6 0	18 2 0	18 15 0	21 6 0	21 6 0	
September	38 10 0	41 2 0	36 3 0	37 14 0	38 2 0	21 11 0	19 7 0	17 13 0	20 9 0	23 0 0	

October	..	..	39	8	0	37	14	0	41	2	0	39	8	0	37	14	0	21	1	0	20	9	0	18	2	0	21	6	0			
November	..	..	39	8	0	37	12	0	39	8	0	38	3	0	30	3	0	18	7	0	18	15	0	19	12	0	21	1	0			
December	..	..	41	2	0	39	8	0	35	14	0	32	15	0	35	14	0	19	7	0	19	12	0	18	2	0	19	7	0	23	0	0
January	..	..	36	3	0	42	12	0	35	6	0	32	2	0	31	5	0	19	12	0	16	7	0	19	12	0	19	12	0	21	6	0
February	..	..	34	9	0	37	14	0	36	3	0	29	11	0	32	2	0	20	1	0	18	7	0	18	2	0	17	13	0	18	15	0
March	..	..	37	14	0	36	3	0	34	9	0	34	9	0	32	15	0	18	2	0	18	15	0	17	13	0	18	15	0	19	12	0

APPENDIX LVII.

*Average monthly wholesale prices of snuff tobacco at Mangalore market.
(Per māund.)*

Month.	I Quality.						II Quality,					
	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.		
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
April	27 15 0	26 7 0	26 7 0	23 8 0	19 2 0	20 9 0	17 10 0	22 1 0	17 10 0	14 11 0		
May	27 15 0	26 7 0	26 7 0	23 8 0	19 2 0	20 15 0	18 6 0	21 5 0	17 10 0	14 11 0		
June	27 15 0	26 7 0	26 7 0	23 8 0	18 12 0	20 9 0	18 0 0	22 11 0	17 10 0	14 11 0		
July	27 15 0	26 7 0	26 7 0	23 8 0	19 2 0	20 9 0	17 10 0	22 1 0	17 10 0	14 11 0		
August	27 15 0	26 7 0	26 7 0	23 8 0	19 2 0	20 9 0	17 10 0	22 1 0	17 10 0	14 11 0		
September	27 15 0	26 7 0	26 7 0	23 8 0	18 6 0	20 9 0	17 10 0	22 1 0	17 10 0	13 5 6		
October	27 15 0	26 7 0	26 7 0	23 8 0	18 6 0	20 9 0	17 10 0	22 1 0	17 10 0	13 5 6		
November	29 6 0	27 3 0	26 7 0	23 8 0	18 6 0	20 9 0	17 10 0	22 1 0	17 10 0	13 5 6		
December	28 11 0	26 7 0	26 7 0	23 8 0	18 6 0	20 9 0	17 10 0	22 1 0	17 10 0	13 5 6		
January	27 15 0	26 7 0	26 7 0	23 8 0	18 6 0	20 9 0	17 10 0	22 1 0	17 10 0	13 5 6		
February	27 15 0	26 7 0	26 7 0	23 8 0	18 6 0	20 9 0	17 10 0	22 1 0	17 10 0	13 5 6		
March	27 9 0	26 7 0	26 7 0	23 8 0	18 6 0	20 9 0	17 10 0	22 1 0	17 10 0	13 5 6		

APPENDIX LVIII.

Average monthly prices of Pindi tobacco (used for snuff and high class bidis) at Ravandur in Mysore State.
(Per maund.)

Months.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
January	33	20	23	29	24	20	19	21	24	..
February	26	21	29	23	..	24	20	19	..	..
March	21	18	..	..	21	..	..	..	21	..
April	19	23	28	27	19	22	..	21	23	21
May	20	23	37	23	22	..	22	23	..	20
June	33	41	..	..	26	28	19	20	21
July	23	..	24	23	20	..	21	..	..
August	23	24	26	25	23	26	25	21	23	19
September	27	26	27	24	27	23	20	19	..	..
October	25	22	23	..	..	28	..	..	25	27
November	20	29	..	..	23	19	19	..	..
December	21	..	28	25	26	26	..	21	..

APPENDIX LIX.

Average market charges per Rs. 100 worth of raw tobacco.

(For sales in villages.)

Items of charges.	Guntur.			North Bihar. Country (Nain).	U.P.	Punjab.	Delhi.	Burma.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
	North Bengal.	Charotar.	Virginia.										
<i>Payable by seller—</i>													
Handling
Weighing
Commission	1 6 0	2 5 0	..	1 9 0	..	..	..	..
Brokerage
Charity, etc.	0 2 0	0 7 0	..	..	..	..	..	..
Allowances in weight	2 6 0	7 15 0	2 0 6	2 0 6	..	..	1 2 0	0 6 0	7 8 0	..	..
Discount	6 10 0	..	..	..	..	..	..	1 0 0	..	..
Mangon or Present	3 0 0	..	..	..	..	..	..	..	..	..	..
Terminal, Toll or Octroi charges
Miscellaneous
Total	..	5 6 0	14 9 0	3 8 6	4 12 6	0 13 9	2 11 0	0 6 0	0 6 0	8 8 0	..	..	..

APPENDIX LIX—*contd.*

Average market charges per Rs. 100 worth of raw tobacco.

(For sales in villages.)

Items of charges.	North Bengal.	Charotar.	Guntur.		North Bihar.	U. P.	Punjab.	Delhi.	Burma.	
			Virginia.	Country (<i>Natu</i>).						
			Rs. A. P.	Rs. A. P.						
<i>Payable by buyer—</i>										
Weighing	0 7 0	..	..	..	..
Commission	2 6 0	0 8 0	..	0 15 0	..	2 5 6	2 12 0	1 2 3
Brokerage
<i>Lakh</i> or allowance to <i>Dalal</i>	0 6 3	..	..	..	..
Charity	0 2 0	..	..	..	..	..	..
Miscellaneous
Total	..	2 6 0	0 10 0	..	..	1 12 3	..	2 5 6	2 12 0	1 2 3
Grand Total	..	7 12 0	15 3 0	3 8 6	4 12 6	2 10 0	2 11 0	2 11 6	11 4 0	1 2 3

APPENDIX LX.

Average market charges per Rs. 100 worth of raw tobacco.
(For sales in markets.)

Items of charges.		Guntur.		North Bihar. (8 markets).		U.P. (3 markets).		Punjab. (6 markets).		Hyderabad. (6 markets).		Burma. (2 markets).
Nipani.		Virginia.	Country (Natu).	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
<i>Payable by seller—</i>												
Handling ..	..	0 3 2	0 0 8	0 2 4	0 4 0	0 5 0	..	..	..	..	..	..
Weighing ..	..	..	0 3 0	0 2 4	0 2 2	..	0 6 3	0 5 0	0 5 0	0 5 0	0 5 0	..
Commission ..	..	1 9 0	1 6 0	2 6 0	2 3 0	1 5 4	2 8 0	2 0 0	2 0 0	2 0 0	2 0 0	3 0 0
Brokerage ..	..	..	..	..	..	0 11 6	0 11 3	..	..	..	..	..
Charity, etc. ..	..	0 1 2	0 2 0	0 7 0	0 2 0	0 0 9	0 0 4	0 2 6	0 2 6	0 2 6	0 2 6	..
Allowances in weight ..	..	6 0 0	2 4 0	2 4 0	0 10 0	1 12 0	..	..	..	..	..	..
Discount ..	..	1 8 0	..	..	..	0 9 10	0 7 6	..	..	..	..	..
Mangan or Present ..	..	..	..	..	..	..	..	..	..	..	..	..
Terminal, Toll or Octroi charges	1 4 6	..	..	..	..	1 8 0	3 5 9	0 5 0	0 5 0	0 5 0	0 5 0	..
Miscellaneous ..	..	0 0 8	0 2 4	0 0 8	0 1 0	..	..	..	..	..	..	..
Total ..	10 9 10	4 0 4	5 7 0	3 5 10	6 6 5	7 7 1	2 12 6	3 0	3 0	3 0	3 0	3 0

APPENDIX LX—*contd.*

Average market charges per Rs. 100 worth of raw tobacco.
 (For sales in markets.)

Items of charges.	Guntur.			North Bihar. (8 markets).			Punjab. (6 markets).			Hyderabad. (6 markets).			Burma. (2 markets).		
	Nipani.	Virginia.	Country (Natu).	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
<i>Payable by buyer—</i>															
Weighing ..	..	..	..	..	..	..	0	1	0	..	..	..	..	..	..
Commission ..	..	..	0 7 0	..	..	..	2	6	0	..	1 10 3	..	..	0 8 8	..
Brokerage ..	..	..	..	..	..	..	..	..	..	..	1 10 3	..	..	..	..
<i>Lah or allowance to Dala</i> ..	..	1 4 0	..	..	..	..	..	..	..	..	..	..	..	..	..
Charity ..	..	..	0 1 6	..	..	..	0	1	1	..	..	..	..	..	..
Miscellaneous ..	..	..	..	..	..	..	0	0	8	..	..	..	..	..	..
Total ..	1 12 6	..	..	..	..	..	2	8	9	..	3 4 6	..	..	0 8 8	..
Grand Total ..	12 6 4	4 0 4	.5 7 0	.5 14 7	6 5 5	10 11 7	2 12 6	3 8 8	3 8 8	..	..	..	..	..	..

APPENDIX

Certain physical and chemical characteristics of cured

Type.	Colour.	Texture.	Size.	
			Length.	Breadth.
A.— <i>N. Tabacum</i> .				
I. Cigarette—				
1. Virginia blue-cured—				
(a) Guntur ..	Bright lemon to reddish brown.	Fine silky and full to thin.	12" to 18" and over.	6" to 9" and over.
(b) Mysore ..	Bright lemon to green	Fine silky to thin and papery.	10" to 18" and over.	4" to 12"
(c) Saharanpur ..	Bright lemon to reddish brown.	Fine silky and full to thin.	12" to 18" and over.	6" to 12" and over.
(d) Satara ..	Yellow to light brown	Medium to thick but fine.	9" to 15"	5" to 10"
2. Country sun-cured—				
Guntur ..	Light to dark brown ..	Medium and pliable	10" to 18" and over.	6" to 9"
II.—Cigar—				
(a) Madras ..	Light to dark brown ..	Thin to medium and pliable.	18" to 24"	4" to 9"
(b) Bengal ..	Brownish yellow to greenish and dark brown.	Thin ..	10" to 22"	6" to 9"
III.—Cheroot—				
(a) Bengal ..	Brownish yellow with dark spots and patches greenish and dark brown.	Medium ..	10" to 22"	5" to 12"
(b) Madras ..	Dark brown to almost black.	Thin to medium ..	12" to 30"	3" to 12"
(c) Burma ..	Greenish brown to dark brown.	Thin to medium and pliable.	15" to 30"	6" to 12"
IV.—Bidi—				
(a) Gujarati ..	Greenish to yellowish brown in colour with characteristic brown spots.	Thick but not coarse	12" to 15"	5" to 8"
(b) Nipani ..	Golden yellow to orange and light brown sometimes with characteristics brown spots.	Thick but not coarse	12" to 18"	6" to 9"
(c) Mysore ..	Yellowish brown ..	Medium ..	Above 15"	3" to 6"
V & VI.—Hookah, chewing and snuff.	Light to dark brown	Medium to thick and slightly coarse.	10" to 24" and over.	3" to 12"
B.— <i>N. Rustica</i> .				
VII & VIII.—Hookah chewing and snuff—				
(a) Bengal ..	Greenish brown ..	Thick, coarse and wrinkled.	10" to 15"	6" to 12"
(b) U. P., Punjab and N. W. F. P.	Greenish brown ..	Medium to thick and coarse.	6" to 12"	3" to 6" and over.
IX.—Bidi—				
Nipani-Pandharpuri	Light to dark brown	Thick and slightly coarse.	Over 12"	6" to 9"

LXI.

tobacco leaf produced in India and Burma.

Nicotine.			Ash.			Sand.		
Maximum.	Minimum.	Mean.	Maximum.	Minimum.	Mean.	Maximum.	Minimum.	Mean.
%	%	%	%	%	%	%	%	%
2.96	1.22	2.14	16.66	13.87	15.26	0.58	0.27	0.43
1.17	0.60	0.76	13.31	11.44	12.61	1.26	0.70	1.09
2.07	0.62	1.07	16.44	12.96	14.67	3.30	0.90	1.88
2.45	1.56	2.13	18.00	14.12	16.55	0.39	0.28	0.33
3.00	1.38	2.04	19.96	17.37	18.44	1.08	0.33	0.54
3.44	0.65	2.25	22.55	18.83	21.06	1.69	1.10	1.41
3.49	2.76	3.13	17.93	16.04	16.98	3.43	2.81	3.12
4.68	2.88	3.82	19.76	15.43	17.20	8.02	0.96	3.43
5.26	4.25	4.75	18.88	15.97	17.43	10.66	8.80	9.73
3.99	1.19	2.79	20.64	17.98	19.30	2.49	0.73	1.73
3.78	2.30	3.13	23.81	16.55	18.91	4.86	0.67	2.60
5.01	2.96	3.90	21.24	16.00	18.60	1.69	0.27	1.07
5.53	4.32	4.93	14.99	13.02	14.00	2.02	0.93	1.93
4.18	1.63	3.14	22.48	16.18	18.97	7.17	3.89	5.43
7.39	4.58	6.10	24.79	19.73	22.35	2.13	0.50	1.37
4.62	2.00	3.82	27.73	7.36	22.63	30.96	0.73	7.6
8.12	4.03	6.54	17.05	13.20	15.75	4.20	1.44	3.18

APPENDIX LXII.

Agricultural Produce (Grading and Marking) (Tobacco) Rules.

1. *Short title and application.*—(1) These rules may be called the Agricultural Produce (Grading and Marking) (Tobacco) Rules, 1938.

(2) They shall apply to tobacco grown in India.

2. *Grade designations.*—Grade designations to indicate the quality of unmanufactured tobacco (*Nicotiana Tabacum*) grown in India are set out in column 1 of Schedules I to III.

3. *Definition of quality.*—(1) The general characteristics of quality indicated by such grade designations shall be as follows :—

All the tobacco shall consist of clean and properly cured leaf free from excess moisture, stems and other extraneous matter.

The tobacco may consist of leaf or strips (S) but not of mixtures thereof, and may be reconditioned (mechanically re-dried) (R) or not.

*In the case of "Strips" the lower part of the midrib shall be removed to the extent of at least 50 per cent. of the leaf.

(2) The special quality indicated by such grade designations is set out, against such designations, in columns 2 to 4 of Schedule I, in respect of flue-cured Virginia, of Schedule II in respect of Sun-cured Virginia and of Schedule III in respect of Sun-cured "Natu" (Country).

4. *Grade designation mark.*—The grade designation mark shall consist of the word 'AGMARK' together with the following particulars :—

(a) Reconditioned	The letter "R".
(b) Strips	The letter "S".
(c) Flue-cured	The letter "F".
(d) Variety of tobacco	The letter "V" in the case of Virginia and the letter "N" in the case of <i>Natu</i> (Country).
(e) Grade designation	An Arabic letter.

5. *Method of marking.*—The grade designation mark, together with the following particulars, so far as applicable, shall be clearly indicated on each package by means of a stencil having letters at least 2 inches high :—

(a) The name of the district	To be indicated by the name of the district or the allotted abbreviation.
(b) Year of harvesting	The last two figures of the year.

6. *Example of marking.*—The marks "AGMARK G. 38, R. S. F. V. 1" on a package shall represent Guntur District, 1938, harvest, Reconditioned,

*The absence of any or all of the letters "R", "S" and "F" would mean respectively that the leaf is not reconditioned (mechanically redried), that the leaf is not stripped and that the leaf is sun-cured.

Stripped, Flue-cured, Virginia, Grade 1 tobacco. Similarly the marks "AGMARK G. 38. N. 3" represent Guntur District, 1938 harvest, Sun-cured "Natu" (Country), Grade 3 tobacco.

7. *Special marking rules.*—In years when there are rains at the time of harvest small brown spots appear on the leaves after it is cured. In such years, provided the area of such spots does not exceed 0.5 per cent. in the case of First Grade, 1 per cent. in the case of Second Grade, 1.5 per cent. in the case of Third Grade, 2 per cent. in the case of Fourth Grade and 2.5 per cent. in the case of Fifth Grade, slightly spotted leaf may be packed under the grade designations but shall bear a special mark (PP) following the grade designation mark.

8. *Method of packing.*—(1) Graded tobacco shall be packed in wooden hogsheads or wooden cases, or in bales securely wrapped in gunny cloth.

(2) Each covering shall contain only tobacco of one grade designation, all of which shall have been harvested in the year specified.

SCHEDULE I.

Grade designations and definition of quality of unmanufactured Flue-cured Virginia tobacco grown in India.*

Grade designations.	Special characteristics.		
	Colour†.	Texture†.	Blemish‡.
1	2	3	4
1	Bright Lemon	Fine ..	Slight greenish tings at veins; free from sponginess.
2	Lemon ..	Good to Medium	Small light green patches and greenish tinge at veins with very light and occasional spongy spots at tips and edges of leaf not exceeding 1/32nd of the total area.
3	Dull Lemon (Brights)	Medium ..	Small light green patches and greenish tinge at veins; light spongy spots the area of which shall not exceed 1/16ths of the total.
4	Yellow with greenish tinge (Semi-Brights).	Medium ..	Small light green patches and greenish tinge at veins; light spongy spots the area of which shall not exceed 4/16ths of the total.
5	Dull yellow with greenish tinge (Coloury).	Coarse and thin (not papery) or mixed.	Greenish and light brown patches extending to not more than 5/32nd; sponginess and scalding not exceeding 8/16ths of the total area.

SCHEDULE II.

Grade designations and definition of quality of unmanufactured Sun-cured Virginia tobacco grown in India.*

Grade designations.	Special characteristics.		
	Colour†.	Texture†.	Blemish‡.
1	2	3	4
1	Bright ..	Good ..	Nil.
2	Light Brown ..	Medium ..	1/16.
3	Dark Brown	Medium ..	2/16.

SCHEDULE III.

Grade designations and definition of quality of unmanufactured Sun-cured Natu (Country)§ tobacco grown in India.

Grade designations.	Special characteristics.		
	Colour†.	Texture†.	Blemish‡.
1	2	3	4
1	Bright ..	Good texture and body.	Nil.
2	Light Brown ..	Medium texture and body.	2/16.
3	Light Dark ..	Medium texture and body.	2/16.
4	Heavy Brown	Heavy body ..	2/16.
5	Heavy Dark ..	Heavy body ..	2/16.

*Virginia tobacco shall consist of the following varieties, viz.: Harrison Special, Cash, Adcock and hybrids of these varieties having similar characteristics.

†To allow for accidental errors in grading a tolerance of 1/16th for colour and texture in respect of leaves corresponding to the specifications in the next lowest grade will be allowed except in Grade 1.

‡Blemish shall include green patches, brown spots and patches, damage due to pests and diseases, breakage in handling, sponginess, scalding, black spots or other damage. The figures of proportion given in column 4 refer to the total area of leaf affected in any sample.

§Natu (Country) tobacco may include any of the indigenous varieties of *Nicotiana Tabacum* but all the leaves in any sample or container shall have similar varietal characteristics.

APPENDIX LXIII.

Quantity of imported tobacco (subject to Customs duty) at the ports of each of Indian provinces and Burma which remained in the Customs bonded warehouses on 31st March in each official year.

(In lb.)

Tobacco.	Year.	Bengal.	Bombay.	Sind.	Madras.	Total	Burma.
Manufactured and Unmanufactured.	1928-29	875,110	17,785	17,154	467,393	1,377,442	170,598
	1929-30	1,027,231	61,620	74,285	323,810	1,496,846	110,532
	1930-31	773,448	4,924	53,513	6,400,351	7,232,266	110,881
	1931-32	904,401	9,088	6,650	489,789	1,410,827	3,356
	1932-33	315,426	49,757	32,008	599,985	997,176	7,535
	1933-34	117,238	39,308	19,645	628,529	804,720	6,612
	1934-35	615,163	26,088	9,136	643,277	1,293,664	4,742
	1935-36	330,532	1,656	10,653	659,893	1,002,734	22,700
	1936-37	488,475	1,123	1,690	668,033	1,159,321	7,983

APPENDIX

*Trade (rail and river-borne) in unmanufactured tobacco between
Average for the years 1934-35
(Thousands)*

Exports from.	Imports								
	Bengal.		Bombay.		Madras.		Bihar and Orissa.	United Pro- vinces.	
	Bengal (exclud- ing Calcutta port.)	Calcutta port.	Bombay (exclud- ing Bombay port).	Bombay port.	Madras (exclud- ing Madras port).	Madras ports.			
Bengal (ex-Calcutta port).	..	203.1	..	..	0.5	..	59.0	0.6
Calcutta port	22.6	..	..	..	0.4	0.1	36.4	28.3
Bombay (ex-Bombay port).	1.9	8.1	..	125.2	2.7	3.2	2.1	18.3	
Bombay port	..	..	1.1	..	..	..	..	0.1
Madras (ex-Madras ports).	1.0	80.8	44.4	0.3	..	430.2	54.9	9.4	
Madras ports	..	..	0.1	..	20.0	..	..	..
Bihar and Orissa	263.0	140.0	0.9	..	0.9	..	..	385.0
U. P.	0.8	1.4	8.3	0.1	..	..	5.1	..
Punjab	..	0.6	0.1	..	..	..	..	27.7
C. P. & Berar	0.3	0.2	0.3	..	0.1	..	0.3	5.1	
Assam	11.9	0.6	..	..	..	..	0.1	..
Sind and Br. Baluchis- tan (ex-Karachi).	..	..	0.1	..	..	..	..	0.1
Karachi	..	..	..	..	..	..	..	..
Nizam's Dominions	..	..	0.9	0.1	1.4	0.3	..	..
Mysore	..	..	2.0	..	39.6	19.6	..	0.3
Kashmir	..	..	..	..	..	..	..	..
Rajputana	..	..	0.1	0.2	..	..	..	1.7
Central India	..	..	0.1	0.1	..	..	..	1.3
Total	..	301.5	435.0	58.5	125.7	65.6	453.4	157.9	477.9

LXIV.

*different provinces, Indian States and chief ports in India
to 1936-37.
maunds).*

into.

Punjab.	C. P. and Berar.	Assam.	Sind.		Nizam's Domini- cions.	My- sore.	Kash- mir.	Raj- putana.	Central India.	Total.
			Sind and British Balu- chistan (ex-Kara- chi.)	Kara- chi.						
..	0·3	169·4	..	..	..	..	..	0·7	..	433·6
1·6	0·5	0·5	..	..	0·1	2·1	..	0·5	..	93·1
19·0	124·1	..	5·7	3·7	1·3	2·2	..	120·0	133·7	571·2
..	..	..	0·2	..	..	..	..	0·3	..	1·7
3·8	38·9	..	0·1	..	83·0	76·7	..	..	1·4	825·8
..	0·6	..	..	..	0·3	27·8	..	..	..	48·8
7·9	62·2	21·8	..	0·1	..	0·4	..	0·1	11·5	893·8
111·9	1·0	0·1	..	..	0·1	..	..	45·0	8·7	183·4
..	..	..	2·3	0·6	..	..	7·5	0·9	0·1	30·8
0·1	..	..	..	..	0·1	..	..	0·1	3·1	9·7
..	..	..	..	..	..	..	..	..	..	12·6
13·5	..	..	..	5·4	..	..	0·1	1·0	..	20·2
0·1	..	..	6·6	..	..	..	..	..	..	6·7
..	0·1	..	..	..	..	..	..	..	..	2·8
..	..	..	..	..	2·0	..	..	..	..	63·5
0·1	..	..	..	..	..	..	..	..	..	0·1
0·9	..	..	0·1	..	..	..	..	..	0·5	3·5
0·2	1·1	..	..	..	..	1·8	..	15·6	..	20·2
169·1	229·7	101·8	15·0	9·8	87·8	111·0	7·6	184·2	159·0	3,230·5

APPENDIX LXV.

Annual average coastal export and import trade in tobacco and tobacco products of the maritime Indian provinces and Burma.

Average for 1934-35 to 1936-37.

(All figures in thousands).

		Unmanufactured tobacco.			Cigarettes.			Other sorts of Manufactures.			Total tobacco and tobacco products.			
		Indian.	Foreign.	Total.	Indian.	Foreign.	Total.	Indian.	Foreign.	Total.	Indian.	Foreign.	Total.	
Imports	Quantity	(lb.)	3,766	..	3,766	155	10	165	370	5	375	4,201	15	4,306
	Value	(Rs.)	5,27	..	5,27	7,58	23	7,81	2,36	8	2,44	15,21	31	15,52
Exports	Quantity	(lb.)	11,964	..	11,964	5,24	13	537	925	54	979	13,413	67	13,480
	Value	(Rs.)	1,860	..	18,60	13,32	63	13,95	4,26	79	5,05	36,18	1,42	37,60
Imports	Quantity	(lb.)	1,066	..	1,066	204	1	205	1,143	5	1,148	2,413	6	2,419
	Value	(Rs.)	4,55	..	4,55	4,07	5	4,12	4,36	13	4,49	12,08	18	13,16
Exports	Quantity	(lb.)	1,814	..	1,814	2,145	15	2,160	2,30	..*	230	4,189	15	4,204
	Value	(Rs.)	4,21	..	4,21	60,38	28	60,66	2,81	1	2,82	67,40	29	67,69
Imports	Quantity	(lb.)	313	..	313	85	30	115	89	..	89	487	30	517
	Value	(Rs.)	71	..	71	4,24	1,51	5,75	46	..	46	5,41	1,51	6,92
Exports	Quantity	(lb.)	1,728	..	1,728	225	44	269	1,511	5	1,516	3,464	49	3,513
	Value	(Rs.)	4,82	..	4,82	9,19	2,95	12,14	5,16	30	5,46	10,17	3,25	22,42

Sind	Imports	Quantity	(lb.)	1,142	122	16	138	89	1	90	1,353	17	1,370	
	Exports	Value	(Rs.)	1,93	8,55	1,63	10,18	1,40	6	1,46	11,88	1,69	13,57	
Orissa	Imports	Quantity	(lb.)	79	5	5	10	20	*	20	104	5	109	
	Exports	Value	(Rs.)	13	13	14	32	46	9	9	36	41	77	
Total Br. India	Imports	Quantity	(lb.)	165 .....	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	165 .....	.. ..	165
	Exports	Value	(Rs.)	14	14 .....	.. ..	.. ..	.. ..	.. ..	.. ..	14 .....	.. ..	14
Burma	Imports	Quantity	(lb.)	12 .....	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	12 .....	.. ..	12
	Exports	Value	(Rs.)	1 .....	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	1 .....	.. ..	1
	Imports	Quantity	(lb.)	6,452	566	57	623	1,691	11	1,702	8,709	68	8,777	
	Exports	Value	(Rs.)	12,60	12,60	24,44	3,42	27,86	8,58	27	8,85	45,62	3,69	49,31
	Imports	Quantity	(lb.)	15,597	2,899	77	2,976	2,686	59	2,745	21,182	136	21,318	
	Exports	Value	(Rs.)	27,77	27,77	83,03	4,18	87,21	12,32	1,19	13,51	1,23,12	5,37	1,28,49
	Imports	Quantity	(lb.)	12,013	1,810	4	1,814	267	3	270	14,090	7	14,097	
	Exports	Value	(Rs.)	21,67	21,67	65,42	23	65,65	1,86	26	2,12	78,95	49	79,44
	Imports	Quantity	(lb.)	2,348	18	*	18	214	*	214	2,580	*	2,580	
	Exports	Value	(Rs.)	2,04	2,04	62	1	63	2	1,52	418	3	4,21	

* Less than 500 lb.

APPENDIX LXVI.

*A few representative instances showing the prior-spread of different types of raw tobacco.
(Per standard maund).*

Cigarette tobacco.		Cheroot tobacco.		Bidi tobacco.		Chewing tobacco.		Hookah tobacco.	
Country (Natu) Producer	Scrap and rejections Producer	Producer Shweyin. Consumer- Manufacturer from Rangoon.	Producer Dinhatta (Cooch Behar)	Producer Charotar area.	Producer Nippani. Consumer- Manufacturer from Calcutta.	Producer Mirzapur. (Bihar). Consumer from Cawnpore.	Producer Coimbatore. Consumer from Gudiyattam.	Producer Sira (Mysore). Consumer from Bangalore.	Producer Muzaffarpur. Consumer Manufacturer from Cawnpore.
—	—	—	—	—	—	—	—	—	Producer Delhi. Consumer Manufacturer from Lahore.
Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
14 15 7 (74.0)	3 1 6 (36.8)	6 10 0 (85.0)	10 14 0 (84.3)	5 10 0 (58.2)	15 8 0 (75.0)	8 14 0 (67.2)	9 9 0 (69.0)	6 13 3 (26.5)	13 3 0 (83.1)
Amount realised by the grower.									3 5 9 (59.7)
Marketing charges.	0 6 0 (1.9)	0 2 6 (1.9)	0 3 10 (3.1)	0 14 0 (6.8)	1 0 0 (10.4)	2 2 5 (10.5)	0 8 0 (3.8)	0 7 6 (1.8)	0 13 0 (5.1)
Packing and package charges.	0 4 0 (1.2)	0 2 3 (1.7)	0 2 4 (1.8)	0 6 5 (3.1)	0 6 6 (4.2)	0 7 4 (2.3)	0 4 0 (1.9)	0 5 0 (1.2)	0 6 0 (2.4)
Transport up to railway station or port.	0 13 0 (4.1)	0 2 9 (2.0)	0 5 6 (4.4)	0 1 6 (0.7)	0 1 2 (0.7)	0 1 0 (0.3)	0 2 0 (0.9)	0 1 10 (0.8)	0 2 0 (0.8)
							..		0 1 0 (1.1)

Freight and handling charges at Ry. stations or ports.	3 1 9 (15.6)	4 12 0 (56.5)	0 5 3 (4.2)	0 8 6 (4.1)	2 3 0 (22.6)	2 2 0 (10.4)	0 14 6 (6.9)	1 8 9 (11.2)	6 10 3 (2.5)	1 1 0 (6.7)	1 2 0 (20.0)
Insurance	0 3 5 (1.1)	..	..	..	..	..	0 0 10 (0.4)	..	..	0 1 0 (0.4)	..
Road transport from railway station or port to merchant's godown.	0 2 0 (0.6)	0 1 6 (1.1)	0 1 10 (1.5)	0 2 0 (1.0)	0 1 0 (0.6)	0 2 0 (0.6)	0 2 6 (1.2)	0 1 0 (0.4)	..	0 3 0 (1.2)	0 2 0 (2.2)
Terminal and octroi charges.	0 2 3 (0.7)	..	..	..	0 5 0 (3.3)	..	0 0 9 (0.3)	0 0 5 (0.2)	10 4 0 (39.8)	0 0 9 (0.3)	0 3 0 (3.4)
Wholesale merchant's margin.	..	..	..	..	..	..	0 13 4 (6.3)	0 14 1 (6.4)	2 6 6 (9.4)	..	..
Retailer's margin	..	..	..	..	..	..	1 7 4 (11.1)	0 9 7 (4.3)	4 13 3 (18.8)	..	..
Manufacturer's or consumer's price.	20 0 0 (100.0)	8 6 6 (100.0)	7 12 9 (100.0)	12 14 5 (100.0)	9 10 8 (100.0)	20 6 9 (100.0)	13 3 3 (100.0)	13 13 7 (100.0)	25 11 9 (100.0)	15 13 9 (100.0)	5 10 0 (100.0)

Notes.—Figures in brackets denote percentage of consumer's price.

GLOSSARY OF VERNACULAR TERMS.

A

<i>Adatya</i>	..	Commission agent.
<i>Ak</i>	..	Milk weed— <i>Calotropis</i> .
<i>Anathalaya</i>	..	An orphanage.
<i>Angad</i>	..	Tobacco powder.
<i>Apta</i>	..	A tree the leaves of which are used as wrappers for <i>bidis</i> .
<i>Arhatiyas</i>	..	Commission agents.
<i>Atki</i>	..	A unit of weight in the wholesale trade of tobacco at Sangli and Jayasingpur equivalent to 224 lb.

B

<i>Baisari</i>	..	A market charge in kind levied in Bengal.
<i>Bandhan</i>	..	A bundle.
<i>Baniya</i>	..	A village merchant who is generally the village financier as well.
<i>Bardana</i>	..	A deduction on account of weight of bags or tare.
<i>Baru</i>	..	Long.
<i>Ber</i>	..	A kind of plum.
<i>Bharam</i>	..	A unit of weight in the wholesale trade of tobacco in Madras varying from 500 to 520 lb.
<i>Bhots or Bhods</i>	..	Packages.
<i>Bhuko</i>	..	Coarsely crushed <i>bidi</i> tobacco leaves.
<i>Bidi</i>	..	An indigenous cigarette made by wrapping powdered tobacco leaf of a tree (<i>Diospyrus</i>). See page 328.

C

<i>Chetty</i>	..	A moneylender.
<i>Chhatank</i>	..	1/16 of a seer.
<i>Chhoot</i>	..	An allowance in weight.
<i>Chilam</i>	..	A country clay pipe, cup or bowl used for smoking raw or manufactured <i>hookah</i> tobacco.
<i>Chintalu</i>	..	Weighing charge.
<i>Chungi</i>	..	Gratuity.
<i>Chura</i>	..	Powder.
<i>Chuttas</i>	..	A large sized <i>bidi</i> .

D

<i>Dalal</i>	..	Broker.
<i>Dalali</i>	..	Brokerage.
<i>Danedar</i>	..	Finely granulated chewing tobacco.
<i>Dhalta</i>	..	An allowance for shrinkage in weight.
<i>Dharalas</i>	..	A lower class grower in <i>Charotar</i> area.
<i>Dharat</i>	..	A payment made to the commission agent at a flat rate in N.-W. F. P.
<i>Dhari</i>	..	Literally five seers. But the weight varies from one area to another.
<i>Dharma</i>	..	A market charge on account of charity.
<i>Dharamadaya</i>	..	A market charge on account of charity.
<i>Dharmao</i>	..	A market charge on account of charity.

<i>Dharmau</i>	..	.. A market charge on account of charity.
<i>Dhas</i>	..	.. Tobacco powder or dust.
<i>Diwali</i>	..	.. A Hindu festival when illuminations take place on a large scale, occurring in October-November.
<i>Double</i>	..	.. Tobacco leaf flakes used for making <i>bidis</i> .
<i>Dudhhkhowa</i>	..	.. Present.

F

<i>Farmas</i>	..	.. Tobacco leaf flakes used for making <i>bidis</i> .
<i>Ferwamani</i>	..	.. A charge for turning over tobacco bags in the store.

G

<i>Ganj</i>	..	.. A heap. (It also means a market).
<i>Ganth</i>	..	.. Bundle.
<i>Ghatia</i>	..	.. Literally inferior—an inferior quality of <i>hookah</i> tobacco.
<i>Goli</i>	..	.. A pill or tablet.
<i>Gonds</i>	..	.. Bales.
<i>Gowshala</i> or <i>Goashala</i>	..	.. An institution providing shelter for cows.

H

<i>Hat</i>	..	.. A weekly market.
<i>Hatpan</i>	..	.. <i>Bidi</i> tobacco leaves spread and bundled.
<i>Hat-tola</i>	..	.. An extra quantity of tobacco given to the buyer before he takes delivery of the stock.
<i>Harijans</i>	..	.. Depressed classes.
<i>Hookah</i>	..	.. Smoking pipe—smoke being drawn through water in vase to which a long flexible tube and a bowl are attached.
<i>Hujra</i>	..	.. Meeting place.
<i>Hundekari</i>	..	.. A forwarding and clearing agent.

J

<i>Jarda</i> or <i>Zarda</i>	..	.. Powdered chewing tobacco.
<i>Jowar</i>	..	.. A millet— <i>Audropogan Sorghum</i> .
<i>Judi</i> or <i>Jutti</i>	..	.. Bundle.

K

<i>Kachcha</i>	..	.. Literally “raw” and “unfinished”. The word has a wide range of meanings, e.g., a <i>kachcha</i> road is an unmetalled road; <i>kachcha</i> as applied to work would imply slipshod or inefficient; <i>kachcha arhatiya</i> is a trader of small means dealing in agricultural produce before it is bagged or made ready for final sale.
<i>Kadbi</i>	..	.. <i>Jowar</i> straw.
<i>Kala</i>	..	.. Black.
<i>Kali</i>	..	.. Black.
<i>Kambli</i>	..	.. A blanket.
<i>Karwa</i>	..	.. Literally of bitter taste—a strong and pungent quality of <i>hookah</i> tobacco.
<i>Katha</i>	..	.. 1/22 acre.
<i>Khabbars</i>	..	.. A rope of twisted tobacco plants.
<i>Khambira</i> or <i>Khamira</i>	..	.. A tobacco product.

<i>Khamir</i>	..	.. Lit. fermented stuff. A tobacco product.
<i>Kunbin</i>	..	.. Areca-nut palm.
<i>Kurchi</i>	..	.. Small.

L

<i>Labh</i>	..	.. A market allowance.
<i>Lal</i>	..	.. Red.
<i>Lona-mitti</i>	..	.. Salty soil containing large quantity of saltpetre.

M

<i>Mahajan</i>	..	.. Money-lender or banker.
<i>Mahars</i>	..	.. An important section of <i>Harijan</i> community in the Bombay Presidency.
<i>Mamools or Mamul</i>	..	.. Literally customary—a fixed charge.
<i>Mangon</i>	..	.. A present.
<i>Map</i>	..	.. 3 standard maunds make one Bombay <i>Map</i> .
<i>Marfat</i>	..	.. Forwarding agent's charges.
<i>Marfatia</i>	..	.. A forwarding agent.
<i>Mattasam</i>	..	.. Medium.
<i>Mhots</i>	..	.. Improvised bags made of coarse woolen blankets.
<i>Mistri</i>	..	.. A head coolie.
<i>Milha</i>	..	.. Literally sweet—a mild quality of <i>hookah</i> tobacco.
<i>Muddlat</i> Literally period. A deduction made by the <i>arhatiya</i> to cover the loss of interest on money which he pays in advance to his seller-client.
<i>Munshi</i> Clerk.

N

<i>Naman</i> A market charge levied in the <i>Charotar</i> area.
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P

<i>Paghadi</i> Literally a gift—a market charge levied in the <i>Charotar</i> area.
<i>Paikars</i> Hawkers.
<i>Palka</i>	..	.. Solidly built. Literally—final, real or mature.
<i>Pallas</i>	..	.. Bales.
<i>Pandal</i>	..	.. A curing shed.
<i>Panwala</i>	..	.. A betel-leaf and betel-nut seller.
<i>Pathan</i>	..	.. An Afghan; a sect of Mohammedans.
<i>Pathshale or Patshala</i>	..	.. A school.
<i>Patti</i>	..	.. Literally leaf—coarsely powdered chewing tobacco.
<i>Patwari</i>	..	.. A petty revenue official in the village.
<i>Pendis or Pindis</i>	..	.. Bundles.
<i>Petras</i>	..	.. Strong bamboo crates.
<i>Pheria</i>	..	.. A hawker.
<i>Pili</i>	..	.. Yellow.
<i>Pinjrapole</i>	..	.. An institution providing shelter for cattle.

<i>Pothi</i>	A unit of weight in the wholesale trade of tobacco in Madras varying from 250 to 500 lb. It also means a package.
<i>Putty</i>	A unit of weight in the wholesale trade of tobacco in Vizagapatam equivalent to 450 lb.

Q

<i>Qiravam</i>	Literally essence—chewing tobacco made in the form of a paste.
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R

<i>Ravad</i> or <i>trible</i>	Tobacco leaf flakes smaller in size than those used for making <i>bidis</i> .
<i>Reh</i>	Alkaline earth.
<i>Russa</i> or <i>Rassa</i>	Ropes.
<i>Russoom</i>	Contingent expenses.

S

<i>Sada</i>	Literally simple—an inferior quality of <i>hookah</i> tobacco.
<i>Sahukar</i>	A money-lender.
<i>Shroff</i>	A village merchant who is generally the village financier as well.
<i>Sub-dalal</i>	An agent of a broker.
<i>Sur'i</i>	Powdered chewing tobacco.

T

<i>Talati</i>	A petty revenue official in the village.
<i>Taluk</i>	A sub-division in a district.
<i>Tapedar</i>	A petty revenue official in the village.
<i>Tari-jhari</i>	An allowance to <i>kachcha arhatiya</i> .
<i>Thadronji</i>	A market charge on account of charity.
<i>Tharaku Mandies</i>	Wholesale markets.
<i>Thulam</i>	A unit of weight in the wholesale trade of tobacco in Periakulam (Madras) equivalent to 28½ lb.
<i>Trible</i>	See <i>Ravad</i> .

V

<i>Votai</i>	Discount for making cash payment.
<i>Viss</i> (Burma)	3·6 lb. make one Burma <i>viss</i> .
<i>Viss</i> (Madras)	A unit of weight in the retail trade in Godavari and Vizagapatam of Madras equivalent to 3 lb.

Z

<i>Zarda Jarda</i>	Powdered shewing tobacco.
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